

NOTTINGHAMSHIRE COUNTY COUNCIL
EDUCATION COMMITTEE.

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

FOR THE YEAR 1933.

CHRISTOPHER TIBBITS.
M.R.C.S., L.R.C.P., D.P.H.

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PUBLIC HEALTH DEPARTMENT,
THE SHIRE HALL,
NOTTINGHAM,
1st March, 1934.

*To the Chairman and Members of the Education Committee
of the Nottinghamshire County Council.*

LADIES AND GENTLEMEN,

During the past two years the necessity for economy has prevented new activities involving expenditure. This Report, however, will show some expansion of activity within the usual expenditure, actual increases of remedial work having been accomplished and several important inquiries on a large scale having been carried out.

Some evidence of this progress is presented in the following figures for remedial work done.

	1932.	1933.
Special examinations for Defective Eyesight (refractions)	3,260	3,334
Dental Treatment : Number of fillings	22,571	24,175
School Clinic Attendances	48,448	49,364

During three-quarters of the year, the Medical Staff was below normal numerical strength because the vacancy caused by Dr. Seacome's retirement was not filled until 1st September. Thus the Service was short of the equivalent of about half the time of a medical officer for the whole year.

In comparing the figures of the past two years, there is a decrease in 1933 of 1,379 medical inspections. This is due to the same cause, but is less than might have been expected for the loss of half a medical officer (who would normally inspect some 3,000 children per year).

The omission to complete the Staff was deliberate, partly as a contribution to economy and partly owing to the difficulty that only part of the time of a Medical Officer was required.

Early in the year I was appointed Medical Officer to the Committee for the Care of the Mentally Defective and, in undertaking this new duty, I had the opportunity for arranging some reorganisation of Staff.

Dr. C. W. W. Jeremiah, who had been devoting about half his time to Maternity and Child Welfare Clinical work, was taken off this duty and given duties under the Mental Deficiency Acts. The Maternity and Child Welfare work relinquished by him was taken over by the Medical Officers engaged jointly in the Maternity and Child Welfare and School Medical Services, and the resultant loss to School Medical work (equivalent to about half a medical officer), together with the loss due to Dr. Seacome's vacancy (equivalent to over half a medical officer), was made up by the appointment of a whole-time Assistant School Medical Officer on 1st September, thus bringing the Staff back almost to normal strength.

This reorganisation extended also to the Nursing Staff, who were allowed by the Committees concerned to undertake the domiciliary supervision of Mental Defectives under the Mental Deficiency Acts from 1st July. It was, of course, understood that this would result in some slight reduction of work for the School Medical Service, but as the visits to the mentally defective would largely be made in the same homes as required visits under the Maternity and Child Welfare and School Medical Services, it was thought that the loss would not be considerable. Actually the home visiting work of the Nurses for the School Medical Service increased by 1,612 visits, but there was some reduction in the number of Hair Inspections carried out, from 211,500 in 1932, to 195,115 in 1933. The results of Hair Inspection work were, however, satisfactory, for it is again possible, for the twenty-sixth year in succession, to record a reduced percentage of girls affected.

* * * * *

At the time of writing there are signs which justify the hope that some of the needs referred to in my last Annual Report will be met during the next financial year.

DENTAL TREATMENT SCHEME. This improvement in the prospects, is, I believe, vital to the welfare of the Dental Treatment Scheme, for a further period of non-expansion would result in a very serious overloading of the present Dental Staff with excessive numbers of children per Dental Officer.

The two years of stringency have already spoiled the smooth progression planned, with consequent overloading of Staff, resulting in a prolongation of the period between visits to schools.

It will be remembered that the reorganisation of the Dental Scheme in 1930 was based on two fundamental ideas :

1. The necessity for visits to schools at intervals of not more than one year.



2. The removal of the inequitable state of affairs under which children in certain arbitrarily selected schools only were privileged to receive Dental Service.

The Committee accordingly strengthened the Staff by appointing five additional Dental Officers, sufficient to secure an annual circuit of all schools on the current basis of acceptances of treatment within the age groups 6 to 11 inclusive.

It was understood that year by year, as additional age groups came into the scheme and as acceptances grew, further staff would be required for several years. One such addition was made in 1931, and then came two years of unavoidable standstill. During these two years, the time occupied by the circuit of schools has, of course, become longer and, instead of being twelve months, is now eighteen months. It is hoped to appoint two more Dental Officers and Dental Nurses at the beginning of the financial year 1934-35, and this should bring the service back approximately to the annual basis for the time being. Commenting upon Dental Schemes in his Report on "The Health of the School Child" for the year 1932, Sir George Newman writes as follows: "The Authority which provides an adequate Staff for School Dentistry makes the scheme a dental and economic success, whereas inadequate staffing leads to a wasteful failure."

SCHOOL CLINICS. Progress is also now practically assured in the establishment of more School Clinics.

These two sections of the service, the Dental Scheme and School Clinics, definitely dealing with clinical treatment are rightly regarded as being of much practical value to the children of the County and as contributing positively to their health and wellbeing. But there are other important needs to which I have called attention previously and which every officer working in close contact with the children and their parents knows to be very real.

SPECIAL SCHOOLS FOR MENTAL DEFECTIVES. One is the need for much more accommodation for mentally defective children. Here again I am able to record good progress, for the question is now under close consideration simultaneously by the Education Committee and the Committee for the Care of the Mentally Defective. The need for adequate accommodation for Mental Defectives over school age has been recognised by the County Council and the principle of establishing a colony has been approved. In order to secure proper transference of Mentally Defective children from the care of the Education Committee to the Committee for the Care of the Mentally Defective, it is essential that there should be sufficient accommodation in special schools for children of school age. This is because there is a duty imposed upon the Education Authority to "notify" to the Committee for the Care of the Mentally Defective, the names of all children attending special schools for mental defectives prior to their leaving the special schools on reaching the age of 16 years, such "notification" rendering the children automatically "subject to be dealt with" under the Mental Deficiency Acts. If not thus "notified," many of these

mentally defective children may fail to become "subject to be dealt with" and will be under no statutory care after the age of 16 years unless representations are made by their parents or they become delinquent in one way or another. It is therefore very important that there should be a considerable expansion of special school accommodation for both boys and girls, and that there should be provided a definite connecting link between the care given by the Education Committee and the care which can be given by the Committee for the Care of the Mentally Defective.

"OPEN-AIR" TYPE INSTITUTION. A further important need is the provision of the "open-air school" type of accommodation for selected children. In a county area, such a school would probably have to be a residential institution, and it would have to be much more than a school. Its basis would have to be medical care and treatment combined with educational facilities adapted to the needs of the children. An institution of this type is one of the County's real needs, and many are the children whose whole future might be greatly enhanced if they could be given the chance such an institution offers.

There is no children's convalescent home in the County; there is a scarcity of hospital beds for children; there are many children who need care which cannot be given in the home or the day school, such as cases of bronchitis and rheumatism.

The need is there and no more beneficent or practical work is waiting to be done than to secure the necessary facilities during critical years for this group of children.

There were 249 children in the County Elementary Schools at the end of the year who the Medical Officers considered should be specially selected as requiring education in open-air schools.

NUTRITION OF SCHOOL CHILDREN. During the Autumn the Committee decided to carry through a systematic inquiry as to the state of nutrition of the children in their schools from the aspect of possible shortage of food due to economic conditions. The first step was a circular letter of inquiry to the Head Teachers of all Elementary Schools inviting them to comment on the general condition of the children, as to whether they had observed any general deterioration of the children as a whole, any slight deterioration or any deterioration of individual children thought to be due to actual shortage of food.

A summary of the replies indicated a generally satisfactory condition of the children with no change for the worse as judged by non-medical standards. The names of 461 children were, however, submitted as being suspected to be suffering from actual food shortage. In submitting these names, Head Teachers would obviously be influenced not only by the appearance and demeanour of the children but also by their knowledge of the economic conditions of the homes. It was decided to examine each of these children specially and in order to secure uniformity of assessment I deputed the work to a single Medical Officer.

The children were scattered in small groups or as individuals in schools all over the County and no area was particularly involved.

A special schedule of inquiry was drawn up and every child was examined to this schedule.

Dr. P. H. Deeny undertook the work and carried it through with great thoroughness and skill. The work occupied his whole time for six weeks. His report in due course indicated that, of the children examined, there were a proportion suffering from subnormal nutrition due to causes other than actual shortage of food and only a very small number (29) who appeared to be suffering from positive shortage.

As would be expected, there was considerable evidence of children suffering from improper feeding as distinct from shortage of food.

Dr. Deeny's report is printed in this report as a "Special Inquiry" commencing on page 43.

The findings resulting from this inquiry are substantiated by the figures for "malnutrition" obtained throughout the year by routine medical inspection. Only 111 children were recorded as being malnourished out of 25,685 inspected, compared with 145 in 1932 out of 27,064 inspected.

Admitting that "malnutrition" is very difficult of definition, that different investigators will use different methods of assessment and that there is no "standard," it would appear nevertheless to be safe to say that there is no evidence in this county of any definite deterioration in the "nutrition" of the elementary school children, despite the prolonged period of economic difficulty.

This is very greatly to the credit of parents and also proves the value of the various local and national measures taken generally to safeguard the health of children.

LEFT-HANDED CHILDREN. During the year, the Education Committee issued a circular to Head Teachers inviting their co-operation in securing that left-handed children should, with suitable reservations and safeguards, be encouraged to become right-handed.

At the same time it was arranged that every left-handed child should be examined at each annual medical inspection and a special record of each case should be kept. A special report on the results of this year's inquiry appears on page 41.

SPEECH DEFECTS. An important inquiry as to the number of children suffering from defects of speech was also made through the Head Teachers. The replies received have been analysed as a "Special Report" by Dr. C. W. W. Jeremiah, which is printed on page 49.

This shows that there are a large number of children with one or other of the forms of speech defect,

The findings of this report deserve very serious consideration.

For their careful assistance in these important inquiries, I am most grateful to the Head Teachers throughout the County.

New School Clinic Buildings. Two new clinics were opened during the year, both in special new buildings, at Balderton and Kirkby-in-Ashfield.

At Balderton the County Maternity and Child Welfare Committee had erected a new building for use as a Child Welfare Centre and Ante-Natal Clinic, and a school clinic was opened there on 3rd April.

At Kirkby-in-Ashfield the Urban District Council, after close consultation with the Education Committee, erected a new two-storey building, the ground floor for their own use as a Maternity and Child Welfare Centre and Ante-Natal Clinic and the upper floor wholly for the use of the County School Medical Service as a Minor Ailment, Dental and Eye Clinic, which was transferred there on 5th September from less suitable premises.

In both cases the premises are excellent and the clinics are doing good work.

The collaboration with the Kirkby-in-Ashfield Urban District Council, on the initiative of the Urban District Council, is a good example of economical and rational administration with avoidance of duplication.

The building was erected at the cost of the Urban District Council, whose Officers gave every facility to me with regard to the planning of the School Clinic section, and the County Education Committee undertook to pay an agreed annual sum to be inclusive of all services and charges.

At Worksop negotiations were commenced between the Corporation and the Education Committee as to certain premises for use as a School Clinic and Tuberculosis Dispensary.

ORTHOPAEDIC HOSPITAL TREATMENT. In my last Report I expressed the opinion that the arrears of this work would soon be overtaken with a consequential reduction of annual expenditure.

By the end of the year the waiting list contained only 18 names.

It was therefore possible to reduce the estimate for the year 1934-35 by £700.

This is a satisfactory result, both financially and clinically, as it has been necessary in the past to keep children waiting for treatment for as long as two years. The sooner an orthopaedic defect is attacked the better the result and, as a rule, the lower the cost,

HEALTH EDUCATION. A revised edition of the “ Hand-book of Suggestions for Health Education ” was issued during the year and was circulated to all Schools.

This should prove of the utmost value to teachers in planning their methods of Health Instruction, whether its contents are used as the basis of systematic courses or as the means of securing Health Instruction by its application in the study of other “ Subjects ” and in the daily routine of School life.

“ Health ” can never be treated merely as a “ Subject,” for it is not a matter of knowledge only but rather a way of living, taught much better by example than by precept ; acquired not by study but by practice.

Nevertheless, in order that such instruction may have a formal status in the Schools, I have always felt that its specific inclusion in the time tables was desirable not as defining a method but as emphasising a policy.

It has not, so far, been found practicable to require that “ Health Instruction ” shall find a space in “ time tables ” owing to pressure of other subjects.

It is of the first importance that such pressure should not also relegate interest in the way of healthy living into a secondary position for, though *mens sana in corpore sano* is the ideal aim of Education, its attainment is not going to be fulfilled unless the first objective is the sound body in which to develop the healthy mind.

Sir George Newman writes on this subject in unmistakably clear terms :—

“ The medical evidence, however, is quite clear, and almost universal, that much more attention should be given to the matter than is at present the case, both in the Colleges and in the Schools. If the subject was regarded by all concerned as a major question and not a minor one, as of vital importance to the national health and capacity, which should not be neglected or set aside, there would be a substantial advance in all parts of the Country. It is not so much a medical issue (like medical inspection and treatment) as an educational question, and it is, presumably, indisputable that the physical and mental health of the children is the primary and fundamental necessity of all education.”

He further states : “ I am satisfied that the School Teacher and not an outside Medical man or other expert should undertake this task.”

During the year very valuable assistance in Education in Dental Hygiene has been received from the Dental Board whose pamphlets have been extensively used.

Talks have also been given by members of the Staff to meetings of parents.

Lectures on general Health Subjects have been given to parents as members of such organisations as Women's Institutes and Adult Schools.

NUMBER OF SCHOOL DEPARTMENTS, CHILDREN ON THE BOOKS AND IN AVERAGE ATTENDANCE. On the 31st December, 1933, there were 339 School Departments, the number of the children on the books being 56,245 and the number in average attendance 50,433.

* * * * *

I have commented fully in these introductory pages on matters which appear to me to require special notice, and in the body of the Report I have restricted comment as far as possible.

1. STAFF.

The following is a list of the personnel employed in the School Medical Service on 31st December, 1933.

County Medical Officer and School Medical Officer :—

A. Christopher Tibbits, M.R.C.S., L.R.C.P., D.P.H.

Second Assistant County Medical Officer, employed 25/44ths of his time for the School Medical Service: —

C. W. W. Jeremiah, M.R.C.S., L.R.C.P., D.P.H.

Assistant School Medical Officers and District Medical Officers of Health :—

J. Ferguson, M.B., Ch.B., D.P.H. (Medical Officer of Health to Mansfield Woodhouse Urban District Council and the Huthwaite Urban District Council). (Employed 24/44ths for the School Medical Service).

J. M. H. Conway, D.S.O., L.R.C.P., F.R.C.S.I., D.P.H. (Medical Officer of Health to East Retford Borough and Rural District Councils). (Employed 18/44ths for the School Medical Service).

Assistant School Medical Officers :—

Miss A. M. Ogilvie, M.A., M.B., Ch.B., D.P.H. (employed 25/44ths for the School Medical Service).

Miss J. M. Cummins, B.A., M.B., Ch.B., B.A.O., L.M., D.P.H., (employed 21/44ths for the School Medical Service).

Miss E. Douglas, M.B., Ch.B., D.P.H. (employed 23/44ths for the School Medical Service).

C. Ross, M.D., D.P.H. (whole-time Officer of the Education Committee, loaned for Maternity and Child Welfare Work two sessions per month, with salary adjustment).

P. H. Deeny, M.B., Ch.B., B.A.O., D.P.H. (whole-time Officer of the Education Committee, loaned for Maternity and Child Welfare Work one session per month, with salary adjustment).

M. Allan, M.B., Ch.B., D.P.H. (whole-time Assistant School Medical Officer. Appointed on 1st September, 1933).

School Dental Officers :—

D. E. Mason, L.D.S., Senior Dental Officer.
 B. B. Westlake, L.R.C.P., L.R.C.S., L.R.F.P.S., L.D.S.
 F. N. Harrison, L.D.S.
 R. R. Maclean, L.D.S.
 A. G. Taylor, L.D.S.
 G. E. Morgan, L.D.S., H.D.D.
 K. G. Hyland, L.D.S.
 C. E. Fitton, L.D.S.
 A. T. Craig, L.D.S. Appointed 2nd October, 1933.

Mr. C. E. Godfrey, Dental Officer in the Worksop District, resigned to take up private practice on 23rd September.

The vacancy in the Medical Staff was filled by the appointment of Dr. Allan, on 1st September.

Nurse Jennings resigned on 30th September, to take a more lucrative post and was replaced by Nurse D. Hall on 23rd October.

As usual Staff Meetings were held throughout the year at which interesting discussions took place and difficulties experienced were considered.

NURSING STAFF.	District.	School Clinics.	Tuberculosis Dispensaries.	Maternity and Child Welfare Centres.	Ante-Natal Clinics.
<i>Superintendent Nurses :—</i> Miss Bennett, C.M.B., three years' Nursing Certificate, Health Visitor's Certificate, R.S.I. Superintendent of South-Western half of County	—	—	—	—	—
Mrs. Sleigh, C.M.B., three years' Nursing Certificate, Health Visitor's Certificate, R.S.I., Superintendent North-Eastern half of County	—	—	—	—	—
<i>Whole-time School Nurses :—</i> Miss Barker, three years' Nursing Certificate	11. Stapleford	Beeston	—	—	—
Miss Pearson, three years' Nursing Certificate, Certificate for School Nursing, Child Welfare and Tuberculosis Health Visiting	17. Hucknall Arnold	Hucknall Arnold	—	—	—
Miss Davies, three years' Nursing Certificate	16. Sutton-in-Ashfield	Sutton-in-Ashfield	—	—	—
Miss McHugh, C.M.B., three years' Nursing Certificate	15. Mansfield Woodhouse	Mansfield Woodhouse	—	—	—
Miss Moakes, C.M.B., four years' Nursing Certificate	15(a). Kirkby-in-Ashfield	Kirkby-in-Ashfield	—	—	—
<i>Nurses carrying out all duties under the combined Scheme :—</i> Miss D. Hall, C.M.B., three years' Nursing Certificate, Health Visitor's Certificate, R.S.I. Appointed 23/10/33	6. Southwell	—	Newark	Southwell	Southwell
Miss Creasey, C.M.B., three years' Nursing Certificate	1. Misterton	—	—	Misterton	Misterton
Mrs. Atkinson, C.M.B., three years' Nursing Certificate, Certificate for Sanitary Inspector, R.S.I.	8. Collingham	—	—	Balderton Collingham	Collingham
Miss Firth, C.M.B., three years' Nursing Certificate	5. Ollerton	—	—	Ollerton	Ollerton
Miss Wilmot, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. Appointed 27/3/33.	5(a). Edwinstowe	—	—	Edwinstowe Bilsthorpe	Edwinstowe

NURSING STAFF.		District.	School Clinics.	Tuberculosis Dispensaries.	Maternity and Child Welfare Centres.	Ante-Natal Clinics.
Miss Nicholas, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	27. Langold	Worksop	—	—	Langold Harworth	Langold
Miss Pitcher, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	9. Bingham	—	—	—	Bingham Langar Cotgrave E. Bridgford	Bingham Cotgrave Langar
Miss Reid, C.M.B., three years' Nursing Certificate, Certificate for Sanitary Inspector, R.S.I.	28. West Bridgford	—	—	—	West Bridgford	West Bridgford
Miss Taylor, C.M.B., three years' Nursing Certificate	10. Ruddington	—	—	—	Ruddington Radcliffe-on-Trent	Ruddington Radcliffe-on-Trent
Miss Whitaker, C.M.B., three years' Nursing Certificate	2. Retford	—	—	Retford	South Leverton	South Leverton
Miss Worthington, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. Appointed 2/2/33	4. Tuxford	—	—	—	Tuxford Sutton-on-Trent	Tuxford Sutton-on-Trent
Miss Warren, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	20. Leake	—	—	—	Plumtree East Leake Gotham Ruddington	East Leake Gotham Plumtree
Miss Single, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	21. Harworth	—	—	—	Harworth	Harworth
Miss Preedy, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	7. Newark	Balderton	—	—	Balderton Flintham	Balderton Flintham

NURSING STAFF.		District.	School Clinics.	Tuberculosis Dispensaries.	Maternity and Child Welfare Centres.	Ante-Natal Clinics.
Miss Moore, C.M.B., three years' Nursing Certificate .. ..	..	19. Lowdham	—	Nottingham	Lowdham	Lowdham
Miss Bragg, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	29. Bilsthorpe	—	—	Bilsthorpe Edwinstowe Ollerton	Bilsthorpe
<i>Nurses carrying out duties in connection with School Medical Service and Maternity and Child Welfare :—</i>						
Miss Adkin, C.M.B., three years' Nursing Certificate .. ..	..	24. Huthwaite	—	Mansfield	Newstead Huthwaite	Huthwaite
Miss Raithby, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	25. Blidworth	—	—	Blidworth Rainworth	Blidworth
Mrs. Bratley, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	12. Kimberley	—	—	Kimberley	Kimberley
Miss M. Hall, C.M.B., three years' Nursing Certificate .. ..	..	13. Carlton	Carlton	—	Carlton	Carlton
Mrs. Brown, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	23(a). Stanton Hill	—	—	Huthwaite Stanton Hill	Stanton Hill
Miss McCarthy, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	23. Skegby	Sutton-in-Ashfield	—	Stanton Hill Skegby Blidworth	—
Miss Hooper, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	26. Newstead	Hucknall	—	Bestwood Newstead	Bestwood Newstead
Miss Oliver, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	18. Eastwood	Eastwood	—	Eastwood	Eastwood
Miss Johnston, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	14(a). Brinsley	Eastwood Hucknall	—	Beauvale Eastwood	—
Miss Winfield, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I. .. ..	..	13. Carlton	—	—	Carlton West Bridgford	Carlton

NURSING STAFF.		District.	School Clinics.	Tuberculosis Dispensaries.	Maternity and Child Welfare Centres.	Ante-Natal Clinics.
Miss Smithurst, C.M.B., three years' Nursing Certificate	..	22. Clipstone	Clipstone	—	Clipstone	Clipstone
Miss F. A. Jones, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	.. ..	14. Selston	—	—	Selston	Selston
Miss E. M. Jones, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	.. ..	13. Carlton	—	—	Carlton	Carlton
Miss H. Jones, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	.. ..	18(a). Greasley	Eastwood	—	Beauvau Kimberley Selston	—
Miss Schofield, C.M.B., three years' Nursing Certificate, H.V. Certificate, R.S.I.	.. ..	11. Stapleford	Stapleford Beeston	—	Stapleford	—
<i>Nurse carrying out duties in connection with Tuberculosis Visiting and School Medical Service :—</i>						
Miss M. J. Jones, C.M.B., four years' Nursing Certificate	..	3. Worksop	Worksop	Worksop	—	—
<i>Dental Nurses :—</i>						
Miss Harding, three years' Nursing Certificate	..	South Notts.	—	—	—	—
Miss Cordon, do.	..	Mansfield	—	—	—	—
Miss Stokes, do.	..	Woodhouse	—	—	—	—
Miss Waterland, C.M.B. do.	..	Hucknall	—	—	—	—
Miss Spinks, C.M.B. do.	..	Worksop	—	—	—	—
Miss Grocock, C.M.B. do.	..	Sutton-in-Ashfield	—	—	—	—
Miss Parbery do.	..	Newark	—	—	—	—
Miss Malson, C.M.B. do.	..	Beeston	—	—	—	—
Miss Malson, C.M.B. do.	..	Retford	—	—	—	—
<i>Clerks :—</i>						
Mr. W. L. Richardson, Certificate R. San. I., Chief Clerk of the Public Health Department	..	—	—	—	—	—
Miss Page, Senior Clerk	..	—	—	—	—	—
Miss Burke	..	—	—	—	—	—
Mr. H. R. Bagguley	..	—	—	—	—	—
Mrs. Smallman	..	—	—	—	—	—

2. CO-ORDINATION.

The scheme of co-ordination which links up the various Health Services in the County Administration has been fully described in previous reports.

A further valuable measure of co-ordination has been secured during the year by my Department having been made responsible for the medical side of the work of the Committee for the Care of the Mentally Defective and by my having been appointed Medical Officer to that Committee.

3. THE SCHOOL MEDICAL SERVICE IN RELATION TO THE PUBLIC ELEMENTARY SCHOOLS.

(a) SCHOOL HYGIENE. There has been further progress in improving school premises, as shown in the following statement of improvements made during the year 1933, which has been supplied to me by the Director of Education.

LIST OF IMPROVEMENTS TO SCHOOL PREMISES AND FURNITURE DURING THE YEAR ENDED 31ST DECEMBER, 1933.

	SCHOOLS.	
	<i>Council.</i>	<i>Voluntary.</i>
Electric light installed	8	4
Public water supply installed	1	3
Additional heating apparatus	3	—
Lighting and ventilation improvements	1	4
Conversion of hopper closets	3	—
New desks, etc., in place of obsolete furniture	25	31

A careful inspection of all school premises visited is made by the Medical Officers with a view to ascertaining unhygienic conditions, whether of maintenance or of fabric or equipment.

During the year 42 reports were received and passed to the Director of Education for his information and action.

A formal schedule of inspection is supplied to the Medical Officers for this purpose.

There are still many school buildings of out-of-date type, of course, in rural areas ; there are still examples of unsatisfactory school furniture; there are still playgrounds with unsuitable surfaces and still schools with the cruder forms of sanitary accommodation. However, each year sees some progress and it has not been deemed advisable to instruct the Medical Officers to report upon matters not requiring urgent remedy, in view of the impracticability of pressing for considerable expenditure in recent years.

It must not be thought that we, on the medical side of the Education Service, have relaxed one whit our conviction of the primary importance of affording education in surroundings and under conditions which set a high standard of example.

Children are equipped with a disturbingly dispassionate sense of logic and it is little use expecting them to digest a well prepared verbal lesson on cleanliness if the school floors are dirty, if there are insufficient wash basins, if there is no soap or if the towels are obviously unclean. School premises, equipment and services should provide the teacher with an exemplary background against which should be built up the daily practice and habit of healthy living.

(b) ORGANISATION OF SCHOOL DINNERS.

The following report by the Organisers of Domestic Instruction has been received from the Director of Education.

“ There are now approximately 150 schools in the County where arrangements have been made for the children who live a long distance from the school to have their meal comfortably and decently.

The conditions prevailing in the schools vary very considerably owing to the local conditions, number of children staying for the meal and the accommodation available.

In schools where there is a large number staying, a caretaker is paid to prepare the room, warm food (if possible), make hot drinks if they are required, and to do the tidying and washing-up after the meal. In these schools the caretaker is responsible for the supervision during the meal.

In small schools where only a few children stay, the duties are undertaken by the children themselves under supervision of the Head Teacher or one of the Staff.

A school dining room is included in the plans of schools being built, where such a room is deemed necessary. This room includes a kitchen range for the warming of food and drinks, and also a sink for washing-up the pots. Tables and chairs are also provided for the children's use.

The provision of table or desk covers and the necessary utensils for making hot drinks is being continued, and some cups and plates are provided.

Many schools have organised milk or cocoa schemes, whereby the children may obtain a hot drink on payment of a half-penny a day or 2d. a week. The scheme has to be entirely self-supporting.

No food or drinks are provided by the Committee. The children in very many cases, especially in the mining areas, have the chief meal of the day immediately on their return from afternoon school, and so are only provided with a light meal to take to school.”

4. MEDICAL INSPECTION.

The schedule of inspection and the age groups selected for inspection remain unchanged.

Routine inspection was carried out in the following groups :—

- (a) “ Entrants ” to school, as soon as possible in the twelve months following their first admission to a Public Elementary School.
- (b) “ Intermediates,” as soon as possible in the twelve months following their attaining the age of eight years.
- (c) “ Leavers,” as soon as possible in the twelve months following their attaining the age of twelve years.

In addition, many children were examined by special request at ages not falling in these groups on account of defects noted or suspected by parents, teachers or attendance officers. These cases were grouped as “ Specials.” All children in whom any defect was ascertained were noted for re-examination at the next medical inspection.

All the schools in the County except three were visited. Visits to these, arranged at the end of the year, had to be cancelled owing to dense fog prevailing. Inspection of approximately 2,000 children was not carried out during the year.

Out of a total of 25,685 children examined, 9,267 were “ special ” cases. The comparable figures for the year 1932 were 27,064 and 11,761 respectively.

The total of children examined represents 50% of the total of children in average attendance.

A very slight reduction is again noted this year in the number of cases found to be suffering from defects severe enough to require treatment ; 20.48% as compared with 20.60% in 1932.

5. FINDINGS OF MEDICAL INSPECTION.

Review of the facts disclosed.

(a) UNCLEANLINESS. The advance in the general cleanliness of children produced in the past 17 years by regular supervision has been maintained. 4.50% of all children examined were found with nits ; 7.8% of girls and 1.3% of boys, as compared with 8% and 1.2% in 1932.

The number of hair inspections has fallen to a total of 195,115, being 16,385 less than that for the preceding year. The reason for this reduction is given in my introductory comments.

At 342 inspections, affecting 120 schools, all the children were found to be clean. The comparable figures were 366 and 139 respectively in 1932.

Generally speaking, the condition of the children's clothing and footwear was found to be satisfactory. In 19 cases the clothing was reported by the Medical Officers as being unsatisfactory, and in 19 cases the footwear, a rather lower figure than found in 1932.

(b) MINOR AILMENTS. There was a marked diminution in minor ailments found, particularly the infective skin conditions, during the year 1932, and this has been maintained in 1933.

(c) CHRONIC TONSILLITIS AND ADENOIDS. Four thousand and twenty-six children were found to be suffering from Chronic Tonsillitis and Adenoids, as compared with 4,740 in 1932. The total of cases requiring treatment was 1,225, which showed a considerable decrease on the previous year. Fifteen per cent. of all children examined were found to be suffering from these defects.

(d) TUBERCULOSIS. The number of children recorded during the year as suffering from pulmonary tuberculosis was 44; 44 were recorded in 1932. Two hundred and one children were found with suspicious signs of this disease, as compared with 193 in the previous year: 117 cases of non-pulmonary tuberculosis were recorded, being the same as in 1932. In 69 of these the cervical glands were involved. The percentage found to be suffering from pulmonary tuberculosis was 0.17, the same as in 1932. Six years ago this percentage was 0.27.

The total number of children known under the tuberculosis scheme to be suffering from active pulmonary tuberculosis in the area of the County Education Authority is only 67.

(e) SKIN DISEASES. The number of cases of impetigo and ringworm remained low.

(f) EXTERNAL EYE DISEASE. Similarly conjunctivitis and blepharitis remained much reduced.

(g) DEFECTIVE VISION. Defective vision was found in 4,448 of the children examined: 2,184 were referred for refraction.

(h) EAR DISEASE AND HEARING. One hundred and seventy-six children were found with defective hearing out of a total of 25,685 examined, compared with 203 in 1932.

(i) DENTAL DEFECTS. Of the children examined at medical inspection 9,730 were noted with dental defects, representing 37% of the total. Only those children with severe dental disease were recorded. Full details of Dental Inspection and Treatment are given in a separate section of this report.

(j) CRIPPLING DEFECTS. Children suffering from the effects of non-pulmonary tuberculosis, rickets and nervous diseases are included under this heading: 959 were found with deformities due to the above-named causes; 548 of these were found to require treatment. Many defects were not sufficiently severe to require that the cases should be added to the "Cripples' Register."

The names of 544 children appeared on the "cripples' register" at the end of the year, of whom 515 were attending orthopaedic clinics. Ninety-four per cent. of the registered cases were under treatment at clinics at the end of the year, compared with 88% in 1932.

(k) **HEART DISEASE AND RHEUMATISM.** In 992 cases there was found evidence of abnormality of the heart ; in 436 cases due to organic disease, and in 556 functional in character. 122 of the cases of organic disease were found to require treatment and 13 of the functional cases. In 33 cases the disease was such that the Medical Officers considered the children required education in Special Schools, and 119 of these cases were, when examined, not attending any school.

The number of children's names now on the Rheumatism register is 223, the majority being slight cases which are registered for the purpose of securing supervision and do not require active medical treatment. Special care is taken in advising the teachers upon the care of children suffering from heart disease or rheumatism, and instructions are given as to regulation or modification of physical exercise and games. Cases requiring active medical treatment are referred to private practitioners or hospitals.

6. INFECTIOUS DISEASE.

During the year cases of infectious disease arose in 173 school departments, but the attendance fell below 60% in only 82 of these, as compared with 46 in 1932. The closure of the school or department on account of infection was found necessary in one instance. The closure was ordered by the Medical Officer of Health.

The school attendance fell below 60% on account of infectious disease during 174 school weeks, compared with 89 in 1932.

The responsible diseases and the number of school weeks respectively affected are set out in the table below :—

DISEASE.						WEEKS.
Measles	..	..	..	..	..	28
Whooping Cough		..	..	..	..	14
Chicken Pox	..	..	..	..	..	1
Coughs and Colds		..	..	..	..	4
Chicken Pox, Mumps and Influenza			..	..	..	3
Measles and Mumps	..	..	..	..	..	4
Influenza	..	..	..	..	..	46
Chicken Pox and Influenza			..	..	..	7
Measles and Chicken Pox		..	..	..	..	9
Whooping Cough, Influenza and Chicken Pox				..	..	2
Measles, Chicken Pox and Influenza			..	..	..	1
Measles and Influenza	..	..	..	..	..	33
Mumps and Influenza	..	..	..	..	..	4
Scarlet Fever	..	..	..	..	..	1
Colds and Influenza	..	..	..	..	..	3
Influenza, Measles and Whooping Cough	..		..	..	..	7
Influenza and Bronchitis		..	..	..	..	1
Whooping Cough and Chicken Pox			..	..	..	6
						<hr/> 174 <hr/>

The School Nurses made 1,061 special visits to schools and paid 2,629 home visits in connection with Infectious Diseases.

7. FOLLOWING-UP.

In order to secure that practical results follow the findings of the Medical Officers at medical inspections, it is essential that visits should be paid to the homes to explain to parents the desirability, in the interests of the child, of carrying out the recommendations made by the Doctors and further to indicate to the parents the best way to do so.

The extent to which following-up is carried out is indicated by the fact that 29,507 visits to homes for this purpose were made during the year 1933, compared with 27,895 in 1932 and 24,508 in 1931.

The maintenance of this work on quite the same level as in 1932 was hardly expected, owing to the Nurses having been given additional duties under the Mental Deficiency Acts. The fact that they have more than maintained the level is indicative of a very praiseworthy zeal and is reflected in the success with which they have secured the submission of defective children for treatment.

This work demands high qualities, both of character and profession and a willingness to do often just that little more than is, or can be, defined in any tabular list of duties.

8. MEDICAL TREATMENT.

(a) MINOR AILMENTS. In those districts in which there are no school clinics, still a very wide area of the County, these ailments are almost certainly not treated in large proportion, but every endeavour is made to persuade parents to take their children to their family Doctor or to a Hospital.

The findings of Medical Inspection at an annual visit only record the amount of minor ailment present at that time, and the total incidence of minor ailment throughout the year is, of course, very much in excess of such findings.

The figures for work done at school clinics in limited areas confirm this fully.

In accordance with the Committee's policy of gradual expansion of school clinic facilities, a new clinic was opened at Balderton on 3rd April, and the clinic at Kirkby-in-Ashfield was removed to new premises on 5th September, as recorded in detail in my introductory statement.

There are now twelve school clinics, mainly situated in Urban areas, as tabulated in the following list.

Situation of Clinic.	Days upon which Clinic is open.	Times of Sessions.	Days upon which a Medical Officer is in attendance.
CARLTON, 576 Main Street.	Mondays and Thursdays	9-30 to 12 noon	Thursdays
SUTTON-IN-ASHFIELD, Lawn House, Station Road.	Mondays, Wednesdays and Fridays	9-30 to 12 noon	Fridays
Ionisation Clinic	Fridays	2 p.m. to 4 p.m.	Fridays
WORKSOP, Urban District Council Offices, Carlton Road.	Tuesdays	9-30 to 12 noon	Tuesdays
HUCKNALL, Cahn Ortho- paedic Clinic, Derbyshire Lane.	Tuesdays and Fridays	9-30 to 12 noon	Fridays
MANSFIELD WOODHOUSE, Public Health Offices, Park Road.	Tuesdays and Fridays	9-30 to 12 noon	Fridays
CLIPSTONE, Hut No. 20, School Clinic.	Tuesdays and Fridays	9-30 to 12 noon	Fridays
STAPLEFORD, Pinfold Lane.	Tuesdays and Fridays	9-30 to 12 noon	Tuesdays
EASTWOOD, Council School, Devonshire Drive.	Tuesdays and Fridays	2 p.m. to 4 p.m.	Tuesdays
KIRKBY-IN-ASHFIELD, School Clinic, Urban Rd.	Tuesdays Fridays	9-30 to 12 noon 2 p.m. to 4 p.m.	Fridays
BEESTON, Dovecote Lane.	Mondays and Thursdays	9-30 to 12 noon	Thursdays
ARNOLD, Arnot Hill House.	Mondays and Thursdays	9-30 to 12 noon	Mondays
BALDERTON, School Clinic, Bullpit Lane, Old Balderton.	Mondays and Thursdays	9-30 to 12 noon	Mondays

The number of children dealt with and the number of attendances at each clinic in the year under review and the year 1932 were as follows :—

	Number of Children.		Total Attendances.	
	1932.	1933.	1932.	1933.
Carlton	728	771	2,249	2,558
Sutton-in-Ashfield	1,016	1,001	5,793	5,108
Worksop	729	834	1,733	1,874
Hucknall	1,276	1,312	8,306	8,211
Mansfield Woodhouse	556	629	4,898	4,811
Clipstone	288	305	1,995	2,512
Stapleford	553	676	4,508	4,836
Eastwood	403	654	5,374	4,328
Kirkby-in-Ashfield	647	678	4,280	4,170
Beeston	411	615	4,213	4,185
Arnold	677	836	5,099	5,889
Balderton (opened 3/4/33) —	—	164	—	882
	<u>7,284</u>	<u>8,475</u>	<u>48,448</u>	<u>49,364</u>

At each School Clinic cod liver oil, cod liver oil and malt, and cod liver oil Emulsion, can be purchased by parents at cost price.

X-RAY TREATMENT FOR RINGWORM. Eight cases of ringworm of the scalp were referred for X-Ray treatment, of whom seven received treatment under the arrangements at the City Central School Clinic.

(b) CHRONIC TONSILLITIS AND ADENOIDS. Four thousand and twenty-six children were found at medical inspections to be suffering from chronic tonsillitis and adenoids, and 1,121 were referred for operation, compared with 1,557 in 1932. The operation was performed in 833 instances, compared with 1,011 in 1932, of which number 801 were treated under the County Scheme. Free treatment or treatment at a reduced fee was authorised by the Committee in 266 cases, and travelling expenses were paid in 25 instances. The considerable reduction in the numbers referred for operation and actually operated upon will be noted.

(c) TUBERCULOSIS. Attendances made by County school children at the tuberculosis dispensaries numbered 1,841, and 59 children were treated as in-patients at the Ransom Sanatorium, 10 at the Gringley Hospital and 5 at the Orthopaedic Hospital at Harlow Wood.

(d) DEFECTIVE VISION. Two thousand one hundred and eighty-four elementary school children were found at medical inspections suffering from defective vision sufficiently severe to require examination by refraction, and 1,828 actually submitted themselves for such examination. Two thousand nine hundred and eighty-seven examinations were carried out during the year for elementary school children, including cases referred from school clinics and those requiring retesting. Two hundred and twenty-three secondary pupils and intending-teacher candidates were examined, as compared with 293 in 1932. One hundred and twenty-four pre-school children were also examined, compared with 88 in 1932, giving a grand total of 3,334 examinations carried out, compared with 3,260 in 1932. Fifty-eight children were treated by private practitioners. Spectacles were ordered for 1,908 elementary school children, being 63% of those examined; in 1,562 cases (81%) spectacles were obtained. A total of 1,820 pairs of spectacles were supplied during the year, and 374 pairs repaired.

As usual the spectacles were immediately supplied on receipt of a signed undertaking from the parent to pay their cost after receipt, by instalments if so desired.

Messrs. Rowley & Co., the Opticians, have maintained their standard of service in a satisfactory manner.

Thanks are again extended to the Head Teachers for the interest they have taken in securing that spectacles are worn according to instructions, and for their help in the collection of repayment instalments.

EYE TESTING OF ENTRANTS. Throughout the year all entrants have been subjected to eye test by means of picture charts,

In the majority of cases the Medical Officers have been able to record a result on the Medical Inspection Schedule.

(e) EAR DISEASE AND HEARING. During the year 891 children were treated for these defects, of whom 824 were treated at school clinics.

Treatment of "discharging ears" by "ionisation" was continued with success in selected cases and the efficacy of the flavine and glycerine method was further substantiated. This method is in use in every school clinic in the County.

I have received the following special report from Dr. Deeny on his experience during the year in treatment by "ionisation."

THE TREATMENT OF OTORRHOEA AT SUTTON-IN-ASHFIELD SCHOOL CLINIC.

"The afternoon sessions at this Clinic are devoted to the treatment of chronic purulent otitis media by ionisation and by the flavine methods. Both these methods continue to give satisfactory results in suitable cases.

In treatment by ionisation the proper selection of cases is of the greatest importance, if any contra-indication to this form of treatment is missed the results are disappointing. All cases which do not show a rapid improvement by this method are reviewed in case some contra-indication has been overlooked.

In cases where the chronic otitis has not reached a point of surgical indication it is the practice to treat a copious discharge by hydrogen peroxide and flavine until the discharge is less. The cases are then re-examined to decide whether they are suitable for ionisation.

The contra-indications to this form of treatment appear to be tuberculous disease of the middle ear, the presence of granulations or polypi, mastoid involvement, the existence of reinfecting foci (such as inflamed tonsils and adenoids, septic oral, nasal and dental conditions) and the existence of caries of the tympanum.

The technique is as follows: the ear is thoroughly cleansed and a speculum is inserted into the external meatus and filled with the zinc solution, a wire connected with the positive pole of a direct current apparatus being passed into the solution. A pad soaked in saline solution is placed on the arm of the patient and connected with the negative pole. From 2 to 5 milliamperes of current are allowed to pass for ten minutes during the first treatment and for fifteen minutes during subsequent treatment.

During the past two years 61 cases have been treated by ionisation. Twenty of the cases did not require more than three treatments, nineteen required up to five treatments, and seven were cured after the sixth ionisation. Six had relapses and were cured after further treatment and in five cases the result is not known.

Some cases have had twelve or more ionisations but it has now been decided not to give any case more than six treatments as, if the discharge does not dry up rapidly, it is not likely to yield to this form of treatment, and even if there is a definite improvement the same result can be obtained by the flavine method.

I am indebted to Mr. H. Bell Tawse, F.R.C.S., for his advice in many cases and for his kindness in arranging immediate surgical intervention in those cases which were found to be unsuitable for treatment by either method."

(f) **THE DENTAL TREATMENT SCHEME.**

As it was necessary to carry out the work for a further year without the increase of Staff which was planned for before the economic crisis, the interval of time between successive visits to Schools was unavoidably extended.

The circuit of Schools now takes eighteen months to complete but I am most happy to be able to record that the Committee have at the time of writing approved of the appointment of two additional Dental Officers and Nurses at the beginning of the next financial year.

This will reduce the "circuits" approximately to a period of twelve months, assuming a continuance of the present conditions as to percentage acceptance of treatment and amount of treatment per child.

The following report on the Scheme was presented toward the end of the year:—

"The Committee will remember that in 1929 the details of the revised Dental Scheme were considered and it was decided to appoint four additional Dental Officers and a Senior Dental Officer to start work in April, 1930, making a total Staff of eight Dental Officers.

The chief aim of the revised scheme was to secure regular annual inspections and treatment in all elementary schools.

It was recognised that this Staff could not deal with all the children in the schools annually, and it was therefore decided to limit the children eligible for inspection under the scheme in the first year to those in the age groups 6-11 years inclusive.

This decision recognised the necessity for appointing additional Staff after the end of the first year, when an additional age group would come into the Scheme, and thereafter each year until all children in the Schools were eligible.

It was further recognised that there might be heavy additions to the numbers by reason of improved acceptance of treatment in many, or all, age periods.

These two main factors therefore necessarily anticipated a steadily growing service, demanding periodical Staff increases if efficiency (*i.e.*, the maintenance of annual circuits for inspection and treatment and adequate treatment per child) were to be secured.

In 1931, an additional Dental Officer was appointed as anticipated.

In 1932 and 1933 the dictates of economy prevented further appointments,

The consequence is that the Dental Scheme is now definitely under-staffed, as the age groups 12, 13 and 14 are now within the Scheme.

Acceptance of treatment has not greatly increased (remaining about 60%) but improved acceptance can be secured at any time when the Staff necessary for the work is available. This can be done with certainty by instruction and propaganda, and only the knowledge of Staff shortage has prevented organised endeavour being initiated to secure increased acceptance.

The present position is as follows :—

- (a) The whole of the school population in the age groups 6-14 inclusive is now eligible for dental inspection and treatment, some 48,000 children. The numbers for inspection will now be approximately static, unless the age group 5 be taken in.
- (b) The actual number now within the Scheme is 41,300 or 5,170 per Dental Officer.
- (c) The average period occupied by a Dental Officer now in completing a circuit of his schools is 18 months.
- (d) If two additional Dental Officers are appointed the numbers per Dental Officer will become :—
 - (i) 4,136 on the basis of present total within the Scheme.
 - (ii) 4,800 on the basis of numbers eligible.
- (e) It is estimated that a staff of ten Dental Officers (exclusive of the Senior Dental Officer) could maintain an annual circuit on basis (i), so long as the acceptance figure remains at 60%, yielding approximately 2,000 treatment cases per Dental Officer.
- (f) Increased acceptance is desirable and can be secured, so it is necessary still to consider the Scheme as a developing one, the ultimate staff requirements of which will not be met by the additional appointments now under consideration."

The figures for the amount of conservative work done in the last three years deserve special mention, as indicating the intrinsic value of the Scheme as a progressively preventive measure.

<i>Number of Fillings.</i>	<i>Year.</i>
15,352	1931
22,335	1932
24,175	1933

The Trailer Dental Van has again proved its value and further experience has not revealed any unsuspected disadvantages.

Several visits of inspection have been made by the Officers of other Education Authorities, and at the Annual Meeting of the British Dental Association at Leicester the Van was, by special request, and with the consent of the Committee, on exhibition.

Mr. Maclean, the Dental Officer who uses it, writes as follows :—

" This gift has been of inestimable value in carrying out day to day dental work for school children in the rural area of the County in which I work,

Prior to the presentation of the travelling Dental Surgery, my work was carried out in temporary premises, such as village huts, churches, or even in one-roomed schools. In fact, I had to do the work in any place that could be found for me.

As the whole of this outfit is unique in character, it has been the means of creating a sustained interest in the dental work. This interest has been in evidence amongst the parents, teachers and scholars.

It need hardly be pointed out that the advent of the Van has been a great saving financially, as it is not now necessary to rent premises in which to do the work.

It will be realised that when a school is visited, it is essential to park the Van in a convenient spot. As this cannot always be done on school premises, I have been obliged to obtain, from various property owners, permission to occupy their land for this purpose. In every case my request for permission to park has been readily granted, and in no instance has a charge been made.

Although I have described some of the benefits which have accrued from the introduction of the Van, there are many other advantages which have simplified the work. A few of these I shall enumerate.

- (i) The maximum of daylight is always obtainable.
- (ii) The Van is invariably in complete readiness to commence work.
- (iii) The interior of the Van can readily be kept in a hygienic condition.
- (iv) The arrangement of the equipment is most convenient. Valuable time is thus saved, and more dental work can be undertaken.

This Van is now beyond the experimental stage, as its utility has earned for it a permanent place in the administration of the dental work of the County."

TREATMENT OF "CASUALS." From the commencement of the reorganised Dental Service I have given instructions that the chief aim must be the maintenance of a preventive conservative scheme, the systematic treatment of dental defects in their earliest stages.

At the same time I have encouraged the humane treatment of casuals *provided that treatment was necessary to remove acute pain or immediately essential to health.*

Casuals, outside these categories, are not accepted.

I hold the view that the policy of conservative treatment must be weakened by any considerable acceptance of casuals, and that the casual problem can only be removed by the educational effect of non-acceptance (with the reservations previously made) backed by a Scheme providing opportunity for overhaul at intervals as nearly twelve-monthly as practicable.

Five hundred and sixty-one casuals were inspected and treated during the year.

In an interesting report which follows, Mr. Mason, the Senior Dental Officer, deals with the detail of the year's work.

“ REPORT OF THE SENIOR DENTAL OFFICER.
D. E. MASON, L.D.S.

The numerical strength of the Dental Staff remained the same in 1933 as it was in 1932, *i.e.*, nine full-time Dental Officers and eight full-time Dental Nurses. There was only one change in the personnel and this fact enabled the routine work to be carried out without the disorganisation which frequent Staff changes cause.

The routine age groups of children eligible for inspection and treatment remained theoretically the same as in 1932, *i.e.*, children aged 6-11 inclusive, but those children over 11 who had been admitted to the Scheme in previous years were of course also included, with the result that the number of children in the age groups 12 and 13 was almost equal to that in a routine age group.

The total number of children inspected was 27,938, and this number includes 561 ‘Specials’ (children outside the scheme who were specially referred for dental treatment or who sought treatment because of pain, etc.). Of the 27,938 inspected, 23,541 (or 84%) were referred for treatment.

Twelve thousand three hundred and fifty-two children were actually treated and, as 4,397 were found at Inspections to be dentally sound, it is pleasing to record that at the end of the year 16,749 children under the Scheme had healthy mouths and teeth.

Extractions of permanent teeth numbered 3,532 (29 extractions per 100 children treated) and of temporary teeth 20,924 (170 teeth per 100 children treated). With the exception of a very small number which were extracted for other reasons, all of these 24,456 teeth had to be extracted because they were either aching or in a septic state. Twenty-three thousand seven hundred and fifty-six fillings were inserted in permanent teeth, and 419 in temporary teeth.

Much work was carried out which can only be classed in the statistical tables as ‘other operations.’ I refer to such operations as the surgical cleansing of neglected mouths, the treatment by suitable drugs of inflammatory conditions of the gums, the insertion of dentures, obturators, and orthodontic appliances, and the fitting of artificial crowns to broken front teeth.

Wherever an operation (extraction or filling) was likely to be in any way painful, use was made of suitable anaesthesia—either local or general. Ten thousand three hundred and ninety-two children were treated under local anaesthesia and 1,072 children had extractions carried out under ‘gas.’ The use of ‘gas’ was not limited merely to children in urban areas, but was available, where necessary, for use on children in the smallest villages in the County. Considerable use was made of ‘regional local anaesthesia’ particularly for operations on teeth of the lower jaw. In a very interesting report, Mr. F. N. Harrison, who has now made extensive and successful use of this form of anaesthesia on children for nearly eight years, states :—

‘ In some cases it is either difficult or undesirable to obtain anaesthesia of a tooth by an injection into the tissues immediately adjacent to the tooth. ‘Regional Anaesthesia’ however, overcomes the difficulty and also avoids the risk of spreading infection as the injection of fluid is made at a spot some distance from the actual tooth. A further advantage is that this injection will produce anaesthesia of several teeth at the same time and thereby enable more extensive treatment to be carried out at one visit.’

‘ The technique can be modified according to the treatment it is proposed to carry out, for instance it is in most cases only necessary to ‘block’ the buccal and lingual nerves for extraction of temporary mandibular molars, but where desirable the full ‘mandibular block’ can be used for infants of five or older. This form of anaesthesia is particularly useful for removing badly broken down teeth in the lower jaw, as it allows a maximum of time in which to carry out this difficult work. Where required, a bilateral injection can be made quite safely, and in these cases a complete anaesthesia of the whole of the lower jaw is produced.’

The outstanding feature of the year’s work is once again undoubtedly the number of fillings which were inserted in permanent teeth. The aim of the School Dental Service is to give such treatment during school life as will enable the child under the Scheme to leave school with a *complete* and healthy dentition. Apart from instruction regarding diet and oral hygiene, this aim can only be achieved by cutting out and suitably filling all decayed spots as soon as they are detected. Working to this policy, it was found necessary to insert no fewer than 23,756 fillings (permanent teeth) in the mouths of the 12,352 children treated. This works out at 193 fillings for every 100 children treated (compared with 61 fillings per 100 children as the average figure for the country as a whole). The nature of the filling inserted depended on the requirements of the teeth under consideration, but generally speaking ‘back teeth’ were filled with metal (silver or copper amalgam) and ‘front teeth’ with a synthetic porcelain to match the natural tooth in colour. The big majority of the fillings were lined with a non-conductive germicidal cement in order to prevent thermal changes being transmitted to the nerve.

Certain second teeth frequently show ‘weak spots’ on eruption. These weak spots are cavities of the future, and Mr. G. E. Morgan, who

has made a practice of treating these teeth before they actually become decayed, reports on the procedure as follows :—

‘ ‘ Prophylactic fillings,’ as their name implies, are not so much for the remedy of decay, as for the prevention of it.

In the enamel covering the biting surfaces of teeth, particularly back teeth, there are usually imperfections which take the form of minute cracks and fissures. It is in these cracks and fissures that decay most often commences, as food is forced into them and left there to ferment, forming acids which destroy the adjacent enamel and so open a breach into the body of the tooth. From this point decay may be very rapid, and progress so rapidly between inspections as to necessitate the loss of the tooth.

If, however, these imperfections in the tooth can be eliminated and replaced by a perfectly smooth surface which affords no lodgement either for food or decay producing organisms, then the tooth will be much more immune to the attacks of decay, and in effect that is what is done.

Those permanent teeth, usually the molars, but often other teeth as well which present, deep, well marked pits and fissures are noted : these fissures are then cut into with a small bur, and opened up along their whole length. The resulting irregular-shaped cavity, which is usually quite shallow, is then slightly deepened and shaped so as to afford adequate retention for the filling. Next it is treated with silver nitrate by the precipitation method, and it is then dried and filled with first a non-conducting cement lining, and finally a hard-wearing silver amalgam, which is burnished down level with the surface of the tooth and then polished.

This procedure can be carried out quite quickly, and it is usually possible to treat three or four teeth at a sitting. The operation also is practically painless, but to make quite sure on this point an injection of local anaesthetic is always given for each tooth to be treated.

It is often difficult to convince parents of the advantages of fillings in general, and particularly fillings of this type, which are inserted in teeth which to them appear to be sound : but the results obtained amply justify the time and effort involved, as in most cases the teeth are rendered sound and functional for the rest of the child’s school life.

I have treated many thousands of teeth in this manner, and the vast majority of them have required no further treatment of any sort at subsequent inspection.

Thus the child has been saved from experiencing that amount of discomfort and possible pain which may be associated with treatment carried out in advanced stages of decay.

Also there is a certain amount of future time saved, since small prophylactic fillings of this nature can be carried out much more quickly than extensive restorations, and with more likelihood of lasting benefit.'

As in previous years, the treatment of temporary teeth which, although decayed, were not decayed sufficiently to necessitate extraction, consisted of applications of silver nitrate, which usually has the effect of sterilising the teeth, and retarding considerably the rate of progress of the decay. Silver nitrate, however, has not been limited in its use solely to temporary teeth as in many instances it has been found a distinct advantage to treat permanent teeth with this drug before fillings are inserted. The technique of this operation is dealt with in detail by Mr. Hyland in the following report :—

' For almost three years now every suitable cavity prepared for filling has been treated in the following manner :—

Having been first dried, the cavity is flooded with a concentrated ammoniated solution of silver nitrate. This is left in place while the cement lining is being mixed. The silver is then precipitated on to the floor and sides of the cavity by Iso Eugenol or Formalin. The tooth is now lined with a germicidal cement and filled with silver amalgam in the usual way.

The desired objective is that, combining with the albumen of the tooth substance, the silver renders a surface so treated immune to further attacks of decay. A secondary advantage is that any surface thus treated is made less sensitive.'

By the end of 1933 the circuits were found to be taking on an average about eighteen months to complete, a position brought about by the automatic inclusion of additional children in the Scheme, and also by a slightly increased acceptance percentage.

A circuit period of eighteen months produces a problem of its own by virtue of the fact that teeth which, after an interval of twelve months, may only require small and simple fillings, usually require large compound fillings by the time the interval reaches eighteen months. The cavities which must be cut for compound fillings must of necessity be more complicated than those required for simple fillings, and the operation not only takes much longer but it is also much more trying for the child.

Because of the lengthy time taken to complete the circuits, the propaganda work which was carried out had to be limited almost exclusively to those children who were already included in the Scheme. This propaganda took the form of chair-side talks to the older children at the time of treatment, and talks to parents at dental inspections. A few lectures, usually illustrated by suitable lantern slides, were given in those parts of the County where the acceptance percentage rate fell materially below the average.

In view of the increased time taken to complete the circuits, orthodontic treatment carried out by the wearing of appliances was not included as a routine measure in the Dental Scheme. In eight cases, however, the degree of deformity was considered to be sufficiently severe to merit special consideration, and these eight cases were commenced and completed during the year. Within the County there are of course many children who have irregular teeth, and whose appearance would be very much improved if these teeth could be 'straightened'; but such treatment, if introduced as a routine measure, would still further prolong the circuits.

Six dentures were fitted to replace upper front teeth lost through accidents, and five obturators were fitted to cleft palate cases. X-Ray examination confirmed that three children had dental cysts, and two children were found to be suffering from Vincent's Angina (confirmed by microscopy). Each of these five cases was satisfactorily treated (except for the X-Ray work) by the Staff.

Apart from twenty-two Saturday morning sessions which were devoted by one Dental Officer to treatment at the Sanatorium, the Dental Staff gave their whole time to the Education Committee's work. In addition to the treatment given to Elementary school children, the Dental Officers also inspected and treated approved Intending Teacher Candidates in attendance at Higher Education schools. This work occupied 64 sessions, which is equivalent to the time of one Officer for six weeks. The statistics in respect of this work are :—

Number Inspected	..	..	..	..	..	230
„ referred for Treatment	..	..	..	..	..	196
„ treated by private dentists	..	..	..	..	..	77
„ treated by Committee's Dental Officers	..	..	..	..	..	119
„ of Sessions for Inspection	..	..	..	..	..	7
„ „ Treatment	..	..	..	..	..	57
„ of permanent teeth filled	..	..	..	..	..	509
„ „ „ extracted	..	..	..	..	..	35
„ of other operations	..	..	..	..	..	157

Dental Inspection of these Intending Teachers by one of the Committee's Dental Officers is compulsory; and they are also under obligation to have their dental defects treated, but not necessarily by the school Dental Officers. It will be noted that 77 out of the 196 referred had their treatment carried out by private dental practitioners. Compulsory dental treatment of all Intending Teacher Candidates is of particular value inasmuch as these boys and girls are the elementary school teachers of the near future.

Each of the Dental Officers reports that although the percentage of Elementary school children found to be in need of treatment does not show any appreciable decrease, there is a marked improvement in the dental condition of the average child. Cases in which it is necessary to extract eight or more badly decayed teeth only occur in the mouths of new admissions or persistent refusals. The statistics convey that the

state of the average dentition is now such that seven fillings can be inserted for every permanent tooth which has to be extracted, and when it is realised that in the very big majority of cases necessity for the extraction of permanent teeth only arises as a result of refusal of treatment in previous years, it will be seen that the policy of conservative treatment wherever possible is more than justified."

(g) CRIPPLING DEFECTS. All orthopaedic treatment of an operative nature under the County Scheme is carried out at the Harlow Wood Hospital. Other treatment and supervision under the scheme are provided at the following six orthopaedic clinics, at which the Surgeon attends on the days and at the times stated.

HUCKNALL, Derbyshire Lanc	..	Second Tuesday in the month	2 p.m.
LOUGHBOROUGH, Packe Street		Third Tuesday	„ 2 p.m.
MANSFIELD, General Hospital	..	Every Friday	„ 9 a.m.
NEWARK, Middlegate	..	Fourth Wednesday	„ 2 p.m.
NOTTINGHAM, Park Row	..	Every Monday	„ 2 p.m.
WORKSOP, Council Offices,	..		
Carlton Road	..	Second Tuesday	„ 2 p.m.

During the year 55 children were treated as in-patients at the Hospital. Five hundred and fifteen children received treatment at the orthopaedic clinics, their attendances reaching a total of 8,586. The corresponding out-patient figures for last year were 535 and 10,121.

Surgical appliances and travelling expenses were provided in 74 cases at a cost of £102 9s. 4d.

The financial provision for orthopaedic work was estimated to permit the maintenance of an average of 19 beds in the Harlow Wood Hospital throughout the year.

The waiting list of cases in need of in-patient treatment has now been much reduced and numbers 18 at the time of writing, compared with 34 and 65 at the same periods of 1933 and 1932 respectively.

All the figures of this important work indicate the welcome fact that the arrears of untreated cripples have been overtaken.

The out-patients are fewer in number and the in-patient list is practically reduced to current cases.

An enormous mass of suffering, discomfort and disability has been wiped out since the orthopaedic Scheme was initiated in 1923.

No less than 244 cases have received in-patient treatment under the Scheme, and reports have been prepared and submitted from time to time indicating the very satisfactory results attained by treatment under the skilled hands of Mr. Malkin and his Staff.

It is safe to say that, costly as this treatment has been, both to the parents and the ratepayers, to neither has the cost been anything like as considerable as would have been that of maintaining the patients in their crippled state.

The number of child cripples being produced is now much less than formerly, owing mainly to the preventive activities of the Child Welfare Service, and the cost in future of dealing with cases as they arise will be lower than the cost which has been involved in the past ten years.

It is not inappropriate to comment here that a proportion of the cases dealt with in the Scheme at such heavy cost were caused solely through the drinking of cows' milk infected with the Tubercle Bacillus, and that it behoves all concerned in the welfare of children to take all possible steps to avoid action which may result in the establishment of a disease so disastrous in its effects and so costly in its cure.

9. OPEN AIR EDUCATION.

No special "Open-Air Schools" have been provided in the County, though many new schools are of open-air type. In my introductory comments I have again stressed the need for special provision for selected children.

10. PHYSICAL TRAINING.

During the year 126 cases have been referred to the Superintendent of Physical Instruction for special advice and supervision when visiting the schools.

The following report has been furnished to me by the Director of Education.

"REPORT ON PHYSICAL TRAINING FOR THE SIXTEEN MONTHS ENDED JULY 31st, 1933.

Number of Schools visited, 475.

The Physical Training continues to be satisfactory, but progress fluctuates owing to frequent changes of Staff. The most marked development has been in the Sutton-in-Ashfield and Worksop areas where large Teachers' Classes have recently been held.

With the introduction of rhythmical work in the Elementary Schools a great change is taking place in Physical Training. Teachers attending the classes find the work very different from that of their earlier training when so much static work was done. The new work is infinitely more enjoyable, and has a much greater effect both physically and educationally. In the teachers' classes great stress is laid on the importance of good posture, and the improvement throughout the children's classes in the area is noticeable.

Particular attention has been paid to the Agility Group of the Board of Education Syllabus, with good results. Teachers are encouraged to start simple Group work with the Infants, and gradually to develop this section of the work right through the schools. In this way the work becomes more interesting, more educational, and allows much more work to be got through in the limited time as well as developing a spirit of independence, leadership and citizenship for the future.

The Infants and Junior Classes were run on the lines of the new Syllabus which is to be available at the end of October. The 'Syllabus for Older Girls' was used for the Courses for Teachers of senior children with very encouraging results. The Board of Education advocate the use of portable apparatus such as balancing forms, jumping stands, mats and vaulting boxes for use in classes of senior children. Unfortunately, the number of schools which have any of this apparatus is very small indeed, and in this respect we are falling behind many other Education Authorities.

A number of teachers have attended courses on the use of portable apparatus, and are fully qualified to use it.

The allowance of £100 for the supply of small apparatus for use in Physical Training lessons and games is very greatly appreciated by the Organiser and the teachers. The great development which has taken place in the work in the Infants' Departments lately is in no small measure due to the added stimulus of a share in this grant.

Organised Games.

The Organiser hopes to devote more time to the supervision of this branch of the work during the coming year. Many schools are still handicapped by lack of fields and adequate space in playgrounds for organised games. In a few cases where a field is available provision has only been made for the boys, the girls having to be content with Net-ball and other smaller games in the schoolyard instead of participating in the free running games which the use of a field allows.

Dancing.

Folk and National Dancing is taking place in a great number of the schools. Many of the schools entered teams for the various English Folk Dance Competitions during the year, and the Dancing showed a very good standard. Scottish Country Dancing is now being gradually introduced through the Teachers' Classes.

The number of gramophones in the schools is rapidly increasing, and the Committee's grant of £10 for the purchase of records which can be borrowed by the teachers is a very great help.

Swimming.

Increasing interest is being taken in swimming. The number of schools which regularly send children to the Baths in school time is 27 ; of these, seven have begun this year. Arrangements

have been made for boys and girls of Walker Street School, Eastwood, to attend the Open-Air Bath at Langley Mill, and for the boys and girls of the Church Street Schools, Stapleford, to attend the Ilkeston Open-Air Bath.

Stanton Hill girls have been included for the first time at Sutton. In Worksop there has been a big forward movement and children from five schools now attend the Open-Air Bath as against one previously.

Out of school hours nine other schools encourage swimming, only one of these receiving a small grant of £2 from the Committee towards the cost. The cost to children in the other cases is 9d., 7d., 5d., 3d., and 2d., respectively. Very great credit is due to the teachers who so willingly give their services and much free time to encourage swimming and other activities. At Walker Street, Eastwood, a Girls' Swimming Club has been started. Any girl who can swim may join the Club which meets at the Langley Bath after school one day a week.

The Swimming shows improvement. On the whole the style of the girls is greatly in advance of that of the boys.

A large number of certificates were gained during the 16 months.

			<i>1st Certificate.</i>	<i>2nd Certificate.</i>	<i>Life Saving.</i>
Boys	..	..	216	64	14
Girls	..	..	194	76	20
			<hr/>	<hr/>	<hr/>
Total	..		410	140	34
			<hr/>	<hr/>	<hr/>

During the Summer Term 1932, two classes for Teachers of Infants and Juniors were held at West Bridgford. Courses for Teachers of Infants, Juniors and Seniors were held at Sutton-in-Ashfield in the Spring, 1933, and similar Courses were held at Worksop during the Summer. These were all well attended.

In August, 1932, by permission of the Committee, the Organiser attended a fortnight's Course of Physical Training for Senior Schools.

An interesting event which took place on March 28th, 1933, at the Empire Theatre, was the Scandinavian Gymnastic Demonstration. This demonstration was attended by a number of our senior boys and girls drawn from the schools near the City, and also by a good many teachers."

11. PROVISION OF MEALS.

No meals were provided during the year.

12. CO-OPERATION BY PARENTS.

The proportion of children who were attended by parents at their medical inspection was well maintained, 66% of the children being thus accompanied by 17,048 parents.

Many thousands more attended at the minor ailment clinics and at eye examinations.

In securing proper treatment for their children for defects found at medical inspections, parents have shown steadily increasing co-operation. This is shown by the large proportion of children who secure spectacles, by the steady acceptances of dental treatment, and by the large attendances at school clinics and orthopaedic clinics.

In the matter of cleanliness, clothing (both in appearance and suitability) and footwear, the change effected in the past twenty years is very remarkable and not even the stress of the past few years has caused a serious change for the worse.

Pride in personal appearance, neatness and cleanliness is a very desirable attribute, but I sometimes wonder whether too much emphasis is laid upon this attribute to-day, resulting possibly in expenditure being directed to external appearances which is more needed for bodily maintenance either for parents or children. It is very much to parents' credit that they are able to send their children to school generally so much better clad and shod than formerly, but there is no shame in clothes which though old are clean, though patched are whole.

The nutrition of the child is of more permanent significance as an index of parental ability than mere external appearance.

The present-day tendency, pleasing in many respects, of the young earner to spend lavishly in providing for external appearances may perhaps be one of the unexpected consequences, in some degree, of medical inspection. This tendency has, of course, repercussions on thrift and more remotely on the economics of family life generally.

Perhaps the most noteworthy advance in our contacts with parents has been their increasing desire for information on Health questions. A lecture almost anywhere on a Health subject will secure an audience of interested listeners and keen questioners.

13. CO-OPERATION BY TEACHERS.

There is no measure of co-operation more important to the success of the School Medical Service than the co-operation of Teachers.

Much of the co-operation of parents is secured through the good endeavour of Teachers; many branches of the Service pivot on their help, and each new extension makes new demands upon them, either of time, of goodwill or of tolerance. Inevitably, School Medical work, inspections and various forms of treatment, make, in bulk, quite serious

inroads into children's school hours, and to no small degree cause dislocation and interruption. In administering the service the strictest observance is insisted upon of the necessity to keep such inroads within the smallest possible limits. Nevertheless, unavoidable interruption does occur and it is with real gratitude that I acknowledge the keen spirit of co-operation maintained by Head Teachers and their Staffs.

The prolongation of the period necessary to complete medical inspections in the larger schools in recent years has been particularly difficult for Teachers. This has been due to the fact that both Doctors and Nurses became employed in other services in addition to the School Medical Service, and as such services grew, especially by the multiplication of Child Welfare Centres, an increasing proportion of the Doctors' and Nurses' time became allocated to fixed half-day appointments. This, in turn, necessitated an increasing number of half-day medical inspections with a resultant prolongation of the period required to complete the inspection of a school. The local disadvantages resulting in the schools are thus due to arrangements affording general advantage to the community and the Teachers have most loyally recognised this.

14. CO-OPERATION BY SCHOOL ATTENDANCE OFFICERS.

Almost daily contact is maintained between the School Attendance Section of the Education Department and the School Medical Service in such matters as the outbreak of infectious diseases, the ascertainment of "exceptional children," the attendance of "delicate" children and of children temporarily incapacitated by sickness. The Medical Officers and Nurses are in constant touch with the School Attendance Officers in the schools and at School Clinics and by interchange of information are able to secure much sounder decisions than could result from independent action. Information as to home conditions received from a School Attendance Officer may decide a Medical Officer not to issue a medical certificate excusing school attendance which, on the medical facts alone, he would have issued. Conversely, information to a School Attendance Officer by a Medical Officer or Nurse may prevent his taking action concerning bad school attendances when absence from school is really desirable in the child's interests.

Very valuable help is given also by the School Attendance Officers in visiting parents to ensure their attendance with their children at special examinations, such as those necessary prior to admissions to a "Special School."

Although the principal duty of a School Attendance Officer is to ensure regular school attendance, the work in this County is carried out with every regard to the considerations of health involved and there are mutual understanding and co-operation generally between the School Medical Staff and the School Attendance Officers.

I gladly acknowledge that this is due in large measure to the close liaison established by Mr. W. A. Moore, the Superintendent School Attendance Officer.

15. **CO-OPERATION OF VOLUNTARY BODIES.**

The local Officers of the National Society for the Prevention of Cruelty to Children have throughout the year rendered real service in helping to secure treatment for children whose parents were indifferent or neglectful. Crude cruelty is not a cause for our seeking their help, but there are many cases in which the refined cruelty of neglect to provide necessary medical care has called for their assistance. The promptness with which such calls were met by the local Officers and the success usually attendant upon their visits added materially to the ameliorative work accomplished through the School Medical Service during the year. Many valuable reports have been received from Inspectors Kyle, Cunningham, Banyard and Vaughan, to whom I wish to convey an expression of sincere gratitude.

16. **BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.**

The number of children ascertained in the County in each of these categories is shown in Table III. in the Appendix, together with their disposition as regards school attendance at the end of the year.

The form of this Table has been revised by the Board of Education during the year, particularly as regards the classifications of children suffering from tuberculosis and those requiring education in "open-air schools."

This shows that there are fifteen children suffering from epilepsy who are not at any school or institution, 249 children for whom attendance at open-air schools is desirable, 255 feeble-minded children not in special schools or institutions and others who should be receiving special school education.

Of the 342 educable mental defectives ascertained (certified) 87 are accommodated at the County special schools at Hopwell Hall (boys) and Sutton Fields House (girls).

To both these schools, owing to their smallness and consequent difficulty in classification, only fairly high or medium grade mental defectives are sent, such children as may receive maximum benefit, of whom at least some may become self-supporting citizens.

Last year I commented as follows :—" the low grade defective is, therefore, neglected to the profit of the higher grades and either, if well-behaved, remains in an ordinary elementary school, or, not infrequently, has to be excluded and ceases to be under any regular discipline or training."

I am glad to be able to report that consideration has been given to this question during the year and at the time of writing a report is in draft containing proposals for meeting the deficiency.

The co-ordination of all the medical work on behalf of mental defectives, whether under the Education Committee or the Committee for

the Care of the Mentally Defective, should prove of great advantage, provided that it proves feasible for both Committees to meet the shortage of institutional accommodation.

One hundred and thirty-one special examinations for mental deficiency were carried out and the cases were classified as follows :—

Idiots	8
Imbeciles	13
Mental Defectives	54
Dull and Backward	52
Normal (including one recommended for Industrial School)	4
	<hr/>
	131
	<hr/>

Ascertainment is now approximately complete, according to the standard established by the “Wood Report.”

Regular monthly visits were made to both the County Special Schools by a Medical Officer of the Department with a view to the exercise of a general medical supervision, to retest each child annually, to record the rate and direction of progress, and to report on cases on discharge.

Under the Higher Education Scheme there were twelve blind and two deaf adults under training during the year.

17. NURSERY SCHOOLS.

There are no Nursery Schools in the County.

18. SECONDARY SCHOOLS.

The following Secondary Schools were visited during the year for the purpose of Medical Inspection.

<i>Maintained Schools.</i>	<i>Number Examined.</i>
Nottingham County Secondary (Girls)	142
Retford County High School for Girls	220
Sutton-in-Ashfield Secondary School (Girls)	101
West Bridgford County Secondary School (Mixed)	392
Henry Mellish County Secondary School (Boys)	425
 <i>Aided Schools.</i>	
The Brunts School, Mansfield (Mixed)	397
Queen Elizabeth's Grammar School for Girls (Mansfield)	269
Southwell Minster Grammar School (Boys)	77
	<hr/>
Total examined	2,023
	<hr/>

The character of medical inspection and the arrangements for treatment and following-up were continued as fully described in my Report for 1931. In the Appendix will be found a Table showing the defects ascertained at medical inspections at Secondary Schools (Table II. Secondary) and in Table IV. (groups ii. and iii. Secondary) and Table III. (Local) are shown the particulars of treatment given for defective eyesight, defects of nose and throat and dental defects.

The numerically outstanding defects found in the year 1933 were defective eyesight (565 cases, compared with 408 in 1932) and dental defects (375 compared with 234 in 1932).

Chronic tonsillitis and/or adenoids were found in 106 cases, only 12 of which were considered to require treatment, compared with 112 last year.

Functional heart disturbances were found in 65 cases, and anaemia was present in 130.

Deformities (spinal curvature 53) were found in 119 cases.

Skin diseases and minor eye and ear defects were found only in small numbers.

A total of 612 pupils was found to require treatment.

Treatment under the schemes of the Local Education Authority was given as follows :—

For Defective Vision	..	..	..	223
Defect of Nose and Throat	..	..	..	6
Orthopaedic Defects : Out-patient Treatment	..	..	..	6

The number of defects found during the year was rather higher relatively than in the previous year (during which the findings showed marked reductions).

The Head Masters and Head Mistresses of the Secondary Schools, as usual, took great interest in the medical work done for their pupils and gave every facility for the conduct of the work. Though every endeavour is made to study their convenience in fixing inspections and appointments, there is unavoidable disturbance to school routine.

For their unfailing toleration and effective co-operation I tender sincere thanks.

19. EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

Examinations to determine their fitness for employment were carried out on 325 school children. Certificates of fitness were granted in all cases.

20. PARENTS' PAYMENTS.

Parents are required to contribute towards the cost of treatment, with the exception of Minor Ailment Treatment, towards which they are invited to make voluntary contributions.

The arrangements with regard to parents' contributions are as follows :—

Provision of Spectacles. The cost varies between 4/- and 6/- in "nickel" frames. Spectacles are supplied on the parents' signing an undertaking to repay by instalments. Such payments are made to the Head Teachers. In necessitous cases, the whole or part of the cost is remitted, the circumstances of each case being considered by a minor Committee and assessments being made in accordance with an approved guiding scale.

Parents desiring more expensive frames may obtain them on very reasonable terms from the Opticians, but prepayment is then required.

Parents have consistently honoured their agreements under this scheme and the losses have been very small.

Operations for Chronic Tonsillitis and Adenoids. Parents are required to pay a fixed proportion of the cost in advance and those able to do so are invited to pay the whole cost.

In necessitous cases the fixed proportion is remitted in whole or in part, in the same way as for spectacles.

Dental Treatment. A fee of 1/- is charged to meet the cost of all treatment required at each routine inspection. This is collected by the Head Teachers and must be prepaid.

In cases considered by the Head Teachers to be necessitous the fee is remitted on the certificate of the Head Teacher.

The cost per child is approximately 10/-.

The fee is, therefore, a very small contribution ; its collection is a very burdensome business and in addition it is to some extent a deterrent to acceptance of treatment.

Orthopaedic Treatment. Out-patient treatment is provided at the various Clinics of the Cripples' Guilds to which the Education Committee pay grants annually.

These grants secure free treatment for necessitous cases, but otherwise parents are asked by the Guilds to pay fees according to their ability.

In-patient Treatment. This is usually very costly, and only in rare cases can parents meet the whole cost. Cases are assessed as previously described and parents are required to pay such portion of the total cost as may be fixed, by weekly instalments spread over considerable periods.

X-Ray Treatment for Ringworm is given free of cost to parents.

Minor Ailment Treatment is given free, parents being invited to contribute voluntarily by means of a collecting box in each Clinic.

Treatment of Tuberculosis is free.

Pupils in Secondary Schools are able to participate in each of these services, if their parents so desire, on similar terms, except that Dental Fees to Intending Teacher Candidates are as follows :—

A single “treatment” (one tooth) 2/6.

More than one “treatment” and inclusive of all treatment required, 5/-

21. SPECIAL REPORTS AND INQUIRIES.

(a) LEFT-HANDED CHILDREN.

Preliminary results of an inquiry into the incidence of left-handedness and the effects of training in right-handedness.

By THE SCHOOL MEDICAL OFFICER.

Towards the close of the year 1932 I was asked to advise upon the desirability or otherwise of attempting to teach left-handed children to become right-handed with a view to removing a condition likely to prove a handicap to them on entering industry. After a careful survey of the literature available, and after weighing the risks against the advantages, I gave an opinion in favour of Teachers being advised to attempt such training under certain conditions and with suitable safeguards. The conditions were :—

1. That early commencement of training was advisable.
2. That in cases which failed to respond training should not be persisted in.

The safeguards were the avoidance of strain and subsequently instructions that all left-handed children should be submitted for examination at each medical inspection. The advice was in due course given to all Head Teachers and on the question being taken up in the press, I received a communication from a Teacher in a private school (outside this County) which is sufficiently interesting to be quoted, as follows :—

“For twenty years I have been in daily contact with young children. Having a small school of my own where each child gets individual attention, I have had many left-handed children (especially babies) whom I have completely cured with no bad results following.”

Throughout the last half of the year all left-handed children in the schools visited have been examined to the number of 783. This represents 6.6% of the total number of children examined in that

period. Of these 783 children, 132 were found to be receiving some special training. The remainder, 651, were receiving no training and inquiry into the reasons elicited the following information :—

For no given reason	..	..	..	601
Training ineffective in “ inveterate ” cases	..	..	..	35
Physical defect right hand	..	..	..	1
Too old to start training	..	..	..	5
Owing to mental condition	..	..	..	1
No training required	..	..	..	1
Nervous symptoms suspected	..	..	..	4
Stammering present	..	..	..	3
				<hr/>
				651
				<hr/>

In 56 of these 651 cases the examining Medical Officer found signs of nervous instability which were regarded as contra-indications to training.

An analysis of the reports received on the 132 children who received training showed that in eight cases further training did not appear to be justified by the results attained, and in nine cases was doubtfully justified. Of these 17 cases,

- 5 showed nervous manifestations,
- 7 were thought to be “ inveterate ” cases,
- 4 gave a poor response to training,
- 1 no reason given.

Only in four cases who received training was stammering mentioned.

- (1) “ Said to have stammered two years ago, nil now ; no contra-indication to training.”
- (2) “ Has stammered since eight years of age, when he was asked to write right-handed in school. Stammer now improving ; no contra-indication.”
- (3) “ Stammers. Training contra-indicated.”
- (4) “ Mother states child began to stammer when she forced him to use his right hand at home. No evidence that stammer has become worse at school.”

In three other cases nervous manifestations were recorded, in one of which the Medical Officer advised discontinuance of training. The total number of actual stammerers mentioned is five, out of a total of 783 children, or 0.63%.

An inquiry into the incidence of Speech Defects, also made during the year, revealed 499 stammerers in the whole school population of 56,245 children, or 0.88%.

The proportion of stammerers is, therefore, greater in the whole school population than in the left-handed fraction of the school population.

Thus far, some training has been given without adverse effects to 113 left-handed children and training has been considered as contra-indicated in only 19 cases.

Teachers are undoubtedly hesitant to commence training these children and, as recorded above, no attempt has been made to train 651 of the cases of left-handedness.

This appears to me to be unfortunate, for left-handedness is a serious handicap, and given an early commencement, careful and understanding handling, without pressure or undue suggestion of abnormality, the risks do not appear to be great.

I am not satisfied that the dire warnings given publicity recently are sufficiently well-founded.

The authors of such warnings are apt to quote the one or two proved cases of stammer following training in right-handedness, but appear to lack information on the number of left-handed children who have been trained without any adverse effects. This last information is, of course, vital to a balanced view of the problem, and I hope this local inquiry, which will be continued over a number of years, will help to give guidance definitely one way or the other.

In making the inquiry I have received valuable help from Dr. Buchanan, my Chief Assistant, from Dr. Jeremiah, and from the Medical Officers who have completed the schedules of examination.

“(b) REPORT ON THE STATE OF NUTRITION
OF SELECTED SCHOOL CHILDREN IN NOTTINGHAMSHIRE
ALLEGED TO BE SUFFERING FROM SHORTAGE OF FOOD.

By

P. H. DEENY, M.B., B.Ch., D.P.H., Assistant School Medical Officer.

The terms of reference for this report were :—

- (i.) To examine the children whose condition was considered by the Teachers to be deteriorating on account of lack of food.
- (ii.) To decide if these children were suffering from malnutrition.
- (iii.) To determine if the malnutrition, when present, was due to the child's having ‘received insufficient food.’
- (iv.) To make a brief report on the findings.

I have been confronted with difficulties peculiar to this type of inquiry, as there does not exist any generally accepted or standardised method of making an assessment of nutritional state. There exist many formulae based on height and weight, but no single one has been found

satisfactory, and I doubt if any such method would give satisfactory results. Evidence, clinical and otherwise, was taken over a wide field and the findings correlated in terms of nutrition.

As I conducted these examinations alone, the findings are open to an obvious criticism. All the children have been examined recently by other Assistant School Medical Officers, and as the subject of malnutrition has been discussed at Staff Meetings, I know that the standards set by any one observer approximate very closely to those of the others. In these circumstances the comparison of my findings with those of other Medical Officers is justified.

I feel that an attempt should be made to define a standard of nutrition which would be generally acceptable in order that results obtained by investigations by one observer in any area would be strictly comparable with those obtained by another.

A complete physical examination of each child was made and the results noted under the following headings :—

Weight to Height ratio.

$$\begin{array}{l} \text{Tuxford's formula : } W \quad 354 \text{ (age in months)} \\ \quad \quad \quad \frac{\quad}{H} \times \frac{\quad}{48} = 1,000 \text{ (Girls).} \\ \\ W \quad 381 \text{ (age in months)} \\ \quad \quad \quad \frac{\quad}{H} \times \frac{\quad}{54} = 1,000 \text{ (Boys).} \end{array}$$

was used and gave satisfactory results. Not only did this method pick out the under-weight children, but showed the defect proportionate to its variations from the 1,000. It was not used as a standard of nutrition, as many children who were not under-weight showed definite signs of malnutrition.

Intelligence and Behaviour.

An estimate was made of the intelligence, progress and behaviour at school, as it was considered that the state of nutrition would have an important relationship to the findings.

Personal History.

An inquiry was made into the personal history of each child, his previous illnesses and the regularity or otherwise of school attendances. Where the attendances were irregular the reason for absences was sought.

Family History.

This was obtained where possible, other children of the same family were examined and an estimate made of the state of nutrition of the parent.

Clothing and Footgear.

The condition of these was noted as it has an important effect on the health of the child.

Resistance to Bacterial Infection.

The resistance to bacterial infection is lowered in the case of ill-nourished children as evidenced by the presence of such conditions as blepharitis, otorrhoea, corneal ulcers, boils and carbuncles, septic skin conditions, frequent colds, etc. The signs of this lack of immunity were sought for in all cases.

Organic Defects.

ANAEMIA. An investigation was undertaken with the object of ascertaining whether anaemia was prevalent among the children examined and, if so, whether its origin lay primarily in dietary deficiency or if some other cause or combination of causes was of greater importance. The haemoglobin content of the blood of each child was determined by means of Tallqvist's haemoglobin scale. All cases which showed a haemoglobin content of below 80% were reviewed.

All other physical defects were investigated with the object of determining their relationship to malnutrition.

Other Symptoms and signs of Malnutrition.

The general appearance, posture, muscle tone and facies of each child were noted, and in all cases evidence of past malnutrition (such as old rickets and dental decay) was sought for.

Dietary.

Parents were present at 68.4% of the examinations and inquiries were made both from them and from the children.

An attempt was made to work out the caloric content of the child's diet when this was possible. The mother was questioned as to the amount and nature of the food consumed by the family and calculations made to express the needs of the children in terms of the father whose standard was 3,500 calories (which is a generous allowance) as follows :

Father : 1.00			Mother : 0.83.				
			Children :				
Ages, years	..	..	5	6	8	10	12
Co-efficient	..	..	0.55	0.6	0.7	0.8	0.9

Data as regards first-class protein, milk and its products, and other constituents to cover the vitamin and mineral needs were collected. The times of meals and the methods of cooking were noted and an estimate of the efficiency of the mother was made.

Home conditions.

Inquiries were made regarding the general home conditions and habits of the family.

The lists sent in by the Teachers probably include the names of all the cases of malnutrition thought to be due to food shortage in the County, but they also include the names of very many children who are quite healthy and far from being ill-nourished. A few Teachers seemed to misunderstand the very clear instructions and sent forward children

because of conditions such as defective vision or injuries, and others sent in the names of all children whose fathers were unemployed, irrespective of their physical condition.

The numbers of children examined do not correspond exactly with those in the lists sent by the Teachers. Where one child's name was included and others of the same family were of school age, they were all examined. Very few were absent.

I examined 461 children in all, and as a result I have divided them into two classes :—

- (1) Those whose nutrition was considered satisfactory. The number of such children was 381 ; 82.6% of the total number examined.
- (2) Those who were considered to be suffering from malnutrition. The number of such children was 80 ; 17.4% of the total number examined.

This class was sub-divided into :

- (a) Children whose condition was considered to be caused *mainly* by their having received insufficient food.
These children numbered 29.
- (b) Children whose malnutrition was considered to be due to another cause or combination of causes.
These children numbered 51.

There remained a small number of children who showed signs of malnutrition, who were receiving sufficient food, but in whose case I was unable to discover any cause for their condition.

There is evidence that such conditions as bad environment, heredity, overcrowding, bad housing, fatigue, maternal inefficiency, faulty food or health habits, chronic organic conditions (such as nasopharyngeal obstruction and secondary toxaemias), acute illnesses and even neuroses are among the frequent causes of malnutrition, apart altogether from lack of sufficient food. As many of these agencies were present at the same time in an individual case it was a matter of difficulty to differentiate between them. Observations were therefore made on all factors which were considered to have a causal relationship to malnutrition, and an attempt was made to proportion the responsibility in each case.

Fatigue.

I consider that fatigue is the commonest and the least appreciated cause of physical and mental deterioration in children of school age. A tired child is usually dull and apathetic and is unable to concentrate on his work ; he is often regarded as lazy or stupid and is encouraged to make greater efforts. Fatigue is thus increased and permanent harm may be done to the child. If he is a 'nervous' child he becomes restless, irritable and neurotic, and efforts by the Teacher to correct these symptoms may have disastrous effects.

None of the children who were suspected of being fatigued would admit to feeling tired, but a lack of progress or a change of behaviour had been observed in the majority of cases.

The Teacher is, therefore, in the best position to observe the onset of this condition and to arrange for suitable measures to be taken in order to counteract it. I am of the opinion that the ordinary 'recreation,' which in many cases consists of horse-play or of running screaming from one end of the playground to the other, is definitely injurious to these tired children. Regular daily periods of recumbent rest are necessary and could be easily arranged.

I estimated that over 70% of the children whose condition I regarded as unsatisfactory did not get sufficient sleep, and the consequent fatigue and malnutrition were in great part due to want of adequate rest. This state of affairs is not due to parental ignorance, but to incompetence and neglect.

Probably the most important factor in the health and physique of a growing child is the efficiency of the mother. Almost without exception the mother of ill-nourished children showed an ignorance of food values and of the most economic way to spend her money on food. Children in many households where the income was small were regularly having such things as potted meat and tinned fruit.

The bulk of the dietary consisted of white bread, potatoes and other starchy foods, a little meat and large quantities of tea. The meals were often irregular and more often, badly cooked. The vitamin content of such a diet must be very low and seriously deficient in the essentials 'A' and 'D.' The consumption of fresh fruit, green vegetables and milk was low.

A pint of milk a day is essential for *adequate* growth. Few children get this amount, and many of the older children get only a few spoonful of condensed milk in tea. It has been suggested that milk may enable children to utilise the other constituents of the diet; in any case I have noticed repeatedly the dramatic change in a child's condition after the addition of a pint of milk a day to the ordinary diet.

I found that the diets of children were deficient in first class proteins and vitamins, and contained an undue percentage of carbohydrates. The reason for this was not always economic but in many cases due to lack of knowledge.

In some instances where the food supply was considered the main factor causing malnutrition, the child was found to be receiving more calories than he needed, but mostly in the form of carbohydrates; proteins and fats being seriously deficient.

There is an urgent need of some form of instruction of parents in the needs of growing children, in how to spend their money to the best advantage and in how to prepare appetising well-balanced meals.

Anaemia was found not to be common among the children examined. Less than 7% had a haemoglobin content below 80%. These cases were almost equally divided between the two classes of children, so that by far the greater incidence occurred in the group which was considered to be suffering from malnutrition; the larger proportion (65%) occurring among the children whose malnutrition was considered to be due to causes other than lack of food. The anaemia therefore appears to be most commonly caused by those conditions which lead to a state of malnutrition but has no special relation to the dietary.

It is obviously impossible to assess with any degree of accuracy the intake of iron, but in many cases where the diet was unsatisfactory and where it must have been very low, there was no evidence of anaemia. In cases where the diet was satisfactory additional demands for iron, such as severe illnesses or menstruation did not produce anaemia, but in cases where the diet was below the optimal standard a haemoglobin deficiency was common in the older girls, and in other cases where there was a history of a recent acute illness. It would appear that a minimal dietary does not in itself produce anaemia; some other factor is always present.

It is not within my reference to comment on the administration of social services or to inquire into the standards of relief or payments, but it was noted that nutrition of children of the uninsured classes, such as farm labourers whose employment was irregular, was definitely inferior to that of the other children whose parents were receiving allowances under the Unemployment Insurance Scheme.

I had not the opportunity of going very deeply into the effect of heredity on nutrition, but it did appear that there are isolated groups of the population who are physically and socially inferior. The children come of a bad stock and start life with a serious handicap; the father is unable to provide adequate food and other necessities for his large family and the mother is incompetent. It was in this class that many of the cases of malnutrition were found. It was not surprising that many of these children were found to be mentally retarded. The effects of heredity and environment are of great importance to the physical and mental health of the child, but they defy calculation.

Overcrowding and consequent lack of ventilation, bad housing and unsatisfactory clothing and footgear, appeared to be mainly responsible for malnutrition in a small number of cases both in urban and in rural districts, were contributory causes in many cases and were present in the great majority of cases where the food supply was deficient.

After I had examined each child and formed my opinion on the case, I consulted the records made by other Medical Officers during the course of routine inspection of schools, and in almost every instance I found myself in complete agreement with their findings. Most of the cases of malnutrition were on the special list and under observation, and everything possible was being done to relieve the condition.

SUMMARY.

- (1) There is no evidence of widespread malnutrition due to lack of food. In a school population of 49,000 only 29 children were found to be receiving insufficient food. In all these cases the condition was aggravated by other factors.
- (2) A great number of children are receiving unsuitable food. The need of instruction of parents in food values is urgent.
- (3) A condition of fatigue, which leads directly to a state of malnutrition, was found to be common among the children examined. Many are getting insufficient sleep.
- (4) There is no evidence of a general deterioration in the health of school children in the past two years."

(c) SPEECH DEFECTS.

By DR. C. W. W. JEREMIAH.

"During 1933, the Head Teachers of all School Departments in the County were instructed to complete a form of Questionnaire giving the names of all children in their schools whose speech was defective.

The Questionnaire asked in addition, for the age of each child reported, the class or standard attained and a classification of the defect into 'Severe' or 'Slight' Stammer or 'Other Speech Defect' (to be specified). Finally in the case of each child Head Teachers were required to state whether the speech defect hampered educational progress or not.

Forms of Questionnaire were received in respect of 346 School Departments of which number 59 reported the absence of speech defects amongst the children on the register.

Altogether 1,234 children were reported as suffering from defective speech, of whom 885 were boys and 349 girls.

This total gives a defective speech rate of just over 2 per 1,000 which is somewhat lower than the estimated rate amongst children generally (*i.e.*, 3 per 1,000).

Stammering was noted in 499 instances, whilst 735 children were stated to show 'Other Speech Defects.'

STAMMERING.

Four hundred and ninety-nine children were reported to be subject to stammering. Of this total 408 were boys and 91 were girls. In 142 instances the stammer was stated to be severe in type.

A stammer is now rightly accepted as a manifestation of nervous instability, and might reasonably be likened to a vocal intention tremor. Its origin lies in anxiety and volitional weakness and its eradication

depends upon the adjustment of the psychological factors present in each case, rather than upon 'Speech' training. As a rule, the stammerer, when speaking shows little fault in his articulation.

That stammering, though nervous in origin, is not evidence of mental defectiveness is shown by the fact that of 499 children, 6 only were Mentally Defective, whilst 18 were stated to be Dull and/or Backward.

Frequently the stammerer is of superior intelligence and the Head Teacher of one of the largest boys' schools reported that the top boy in his school had a slight stammer.

This Head Teacher remarked as follows :—

'As a general rule we note that stammering becomes less severe as the boy passes through the school.'

It is somewhat difficult to reconcile this opinion with the following table, illustrative of the numerical incidence of Severe and Slight stammer amongst the children of school age.

Age in years	..	5	6	7	8	9	10	11	12	13
Severe	.. ..	6	7	8	12	12	16	24	32	25
Slight	.. ..	13	36	35	40	41	47	40	41	64

It is reasonable to assume from these data that numerically, and in the severity of its manifestation, stammering is a defect particularly influenced by the stresses of childhood during school attendance age.

During these years a child grows to realise the fullest consciousness of self and learns to appreciate success and failure in their relation to competition with his fellows.

Reading aloud for all the class to criticise—oral lessons demanding answers to questions from a child who may perhaps be conscious of his lack of knowledge and loath to exhibit his lack before his classmates—in these lessons may commence that hesitancy of vocal expression which habitually exercised may produce or accentuate a stammer.

OTHER SPEECH DEFECTS.

Seven hundred and thirty-five children were reported to be suffering from speech defects other than stammering.

Of this total 477 were boys and 258 girls.

It will be noted that the comparative sex incidence does not show the wide dissimilarity of the stammering children.

Defective articulation is frequently an early sign of mental deficiency and of the 735 children reported, 26 are Mentally Defective whilst 70 are stated to be Dull and/or Backward.

In 73 instances speech was so unintelligible as to merit being described as 'idioglossia.'

The analysis of the defects in this portion of the report presented some difficulty having regard for the wide variation in the descriptive terms used.

Some defects were described phonetically whilst the majority were described anatomically.

The use of such descriptions as 'nervous,' 'retarded,' 'poor speech generally,' 'short tongued,' 'long tongued,' 'slight impediment,' 'baby talk,' 'high palate,' 'cleft palate,' 'bad pronunciation,' 'inability to use tongue' will serve to illustrate the difficulties of analysis.

From the phonetic viewpoint the survey of defective speech serves to show that in Nottinghamshire, as universally, the letters and combination of letters, 'R,' 'S' and 'TH' present the most difficulty. Lipping was noted in 82 instances.

In 273 cases the defect was unclassified phonetically, whilst defective vocal resonance was reported of 57 children.

The 735 cases occurred as shown in the following table :—

Age in years ..	5	6	7	8	9	10	11	12	13
No. of children showing speech defects	139	147	118	78	69	55	42	48	39

It is obvious from a glance at these figures that 'training' from the first effort of speech is beneficial and necessary for every child. That training is given during school life is evidenced by the rapid decline in the incidence of these defects as the group age increases.

Unfortunately the Teacher of the 'entrant' child is all too frequently called upon to readjust defects of speech inculcated in the child in its home life. How frequently one reads in these reports that 'the mother speaks badly,' 'the mother is deaf,' or that 'all the family are bad talkers.'

In regard to 19 families two or more children were reported to be suffering from similar speech defects.

ANATOMICAL DEFECTS OF THE ORGANS OF SPEECH.

In 80 of the 735 cases, the speech defect was described anatomically as defects, clefts or malformations, of roof, palate, lips or mouth.

In one instance a nasal polypus was the causative agent.

A perusal of the available medical inspection schedules justified the diagnosis in 28 cases whilst in 34 instances no defect was noted at medical inspection.

It is interesting to note that in these cases described as being due to 'no roof,' 'faulty roof,' etc., the speech may definitely simulate the speech associated with cleft palate even when anatomical defect is limited to a bifid uvula.

This fact seems to suggest that in addition to a failure of development of the tissues forming the palate there may also be a failure in the development of the nerve supply to these tissues, which failure may of itself be sufficient to produce the speech typical of a cleft.

Fourteen of the known cleft palate cases have been operated upon, whilst three are noted as having been fitted with 'plates' (obturators).

Without either operative treatment to establish a sound palate, or the provision of a 'plate,' no amount of training can establish perfect articulation and conversely, without long practised and assiduous speech training after successful operative and/or prosthetic treatment has been secured, the old habits of speech persist and the purpose of treatment is lost.

EFFECTS OF SPEECH DEFECTS ON EDUCATIONAL PROGRESS.

As is to be expected, the opinion is expressed generally that the speech defects have a marked slowing effect upon progress in reading and in oral lessons.

The general educational progress is not so severely hampered amongst stammerers as amongst the children suffering from other speech defects. It is noted that progress is hampered slightly in 104 instances, and severely in 90 of the stammerers.

It is pointed out that children with speech defects show other manifestations of nervous instability or mental retardation, which can account for their slower rate of educational progress.

I would quote here a Head Teacher who suggests that: —
'Educational progress is hampered usually because the child's slowness and confusion lead him and his circle (including parents and teachers) to avoid oral communication as much as possible, with the result that a marked inferiority complex becomes progressively established with advancing years.'

GENERAL CONCLUSIONS.

Too frequently defects in articulation and other defects of vocal production are accepted as inevitable, resulting in lack of any speech training and an ultimate fixed defectiveness at school-leaving age.

Stammerers need more than 'Speech Training.' They need psychological investigation and treatment.

The fact that a child has a 'high palate' or 'short tongue' does not preclude the child from attaining perfect speech.

With 1,234 children reported as suffering from defective speech, there is a definite need for the services of an Instructor for the training of such children, and for the guidance of the Teachers concerned with their care.

Finally, to illustrate the difficulties which Teachers have to face when dealing with these unfortunate children, I cannot do better than quote a Head Teacher's description of a girl of eight years who is not considered to be mentally defective.

Of this girl the Head Teacher states :—
 'D——, cannot form many phonic sounds. This defect hampers progress very seriously indeed. The child cannot be understood and she builds her words wrongly when writing. She is a most remarkable and serious case. She reads her own composition to us, but we cannot tell what she says or even read what she has written.' "

22. MISCELLANEOUS WORK.

In addition to the work already recorded, the following special examinations have been made during the year :—

Candidates for the Teaching Profession	..	..	199
Supplementary Teachers	..	..	4
Caretakers	..	..	16

Of the candidates for the teaching profession :—

Four candidates were rejected, two owing to myopia, one on account of heart condition and one on account of general health.

196 required dental treatment.

93 were suffering from defective eyesight.

The numbers treated are shown in the sections of this report dealing with dental treatment and treatment of defective vision.

* * * * *

In conclusion I trust that this Report has in some measure succeeded in conveying, not only a record of work done, but an indication of the spirit in which it has been carried through by the Staff engaged upon it.

Our aim is to give *Service*, to get those things done and learned which make the children healthier and happier during their school life, more able to profit by the wide range of "Education" now available and better fitted to become citizens, individually and communally effective for their great adventure.

That the Staff have made material contribution to this aim during the year I sincerely believe and for their loyal co-operation I wish to record my thanks.

Behind the scenes of a large Service such as this there are workers unknown to the children, unseen by the parents, who make daily and hourly contribution to the efficient working of the Scheme, who translate recommendations into action and action into achievement. The unobtrusive work of the Clerical Staff determines much of the smooth running of the Service and a measurable responsibility lies on each member. They are book-keepers of living material, a false entry by whom may result in a debit, a child's need not met or a parent's confidence lost.

My thanks are also due to the Honorary Staffs of the Voluntary Hospitals for much help in advising upon special cases referred to them by the Medical Staff; to the Director of Education and his Staff; and to my Senior Medical and Dental Assistants for loyal and devoted assistance in the administration of the Service.

To the Chairman and Members of the Committee I tender my sincere gratitude for their encouragement and support.

I have the honour to be,
 Ladies and Gentlemen,
 Your obedient Servant,
 CHRISTOPHER TIBBITS.

STATISTICAL
TABLES.

TABLE I (Local). Showing the number of Children examined in each Group for the years 1908-33.

Year.	Entrants.	Leavers.	Int'mediate Group.	Total of Entrants, Leavers & Intermediate Groups.	Special Cases.	Grand Total.
1908	1667	1124	..	2791	1445	4236
1909	3038	2024	..	5062	3928	8990
1910	4014	2284	..	6296	3931	10229
1911	4751	2332	..	7083	3952	11035
1912	4272	2033	..	6305	3148	9453
1913	5427	4053	..	9480	1555	11035
1914	7646	5799	..	13445	2414	15859
1915	2774	1903	177	4854	1858	6712
1916	..	..	..	..	3485	3485
1917	..	..	..	..	3655	3655
1918	..	..	..	..	3394	3394
1919	6306	4676	5241	16223	1151	17374
1920	9186	5114	4649	18949	3204	22153
1921	6352	6110	5125	17587	3799	21386
1922	4785	4755	3809	13349	3118	16467
1923	3905	3945	3060	10910	2628	13538
1924	4499	4575	3672	12746	3474	16220
1925	5764	5094	3562	14420	5304	19724
1926	6458	5406	3727	15591	7445	23036
1927	6286	6074	4654	17014	7594	24608
1928	5863	5252	5785	16900	8757	25657
1929	5352	4485	5916	15753	7755	23508
1930	6273	4274	6034	17031	9879	26910
1931	6356	4588	5555	16499	9550	26049
1932	4883	5345	5075	15303	11761	27064
1933	5756	5495	5167	16418	9267	25685

TABLE II. (LOCAL). HAIR EXAMINATION. GIRLS.

Year.	Number examined.	Free from Nits (A).	Percent- age.	Very few Nits (F).	Percent- age.	Few Nits (B).	Percent- age.	Many Nits (C).	Percent- age.	Very many Nits (D).	Percent- age.
1908	..	..	33.0	..	..	..	..	..	..	..	..
1909	..	..	33.3	..	..	..	..	..	..	..	..
1910	..	..	39.4	..	..	..	..	..	..	..	..
1911	21813	9999	45.8	5558	25.4	5368	24.6	781	3.5	107	0.4
1912	20962	11030	52.4	6098	29.1	3361	16.1	444	2.1	29	0.16
1913	20758	10874	52.6	5761	27.8	3496	16.8	592	2.8	35	0.13
1914	19543	10617	54.3	5831	29.8	2757	14.1	331	1.6	7	0.03
1915	19696	10099	51.2	5880	29.8	3205	16.2	496	2.5	16	0.08
1916	20710	11285	54.4	5679	27.4	3322	16.1	410	2.0	14	0.06
1917	20756	12128	58.4	5297	25.5	2887	13.9	441	2.1	3	0.01
1918	18945	11620	61.3	4402	23.2	2644	13.9	274	1.4	5	0.02
1919	20285	13334	65.7	4936	24.3	1773	8.7	232	1.1	10	0.04
1920	20595	14481	70.3	4876	23.6	1099	5.3	128	0.6	11	0.05
1921	21116	15252	72.2	4501	21.3	1124	5.3	190	0.8	49	0.23
1922	21777	16118	74.0	4561	20.9	1009	4.6	75	0.3	14	0.06
1923	23541	17451	74.1	4723	20.0	1211	5.1	132	0.5	24	0.1
1924	23369	17771	76.0	4396	18.8	1055	4.5	132	0.5	15	0.06
1925	22903	18005	78.6	3971	17.3	792	3.4	123	0.5	12	0.05
1926	24654	19967	80.9	3673	14.8	823	3.3	189	0.7	2	0.008
1927	25663	21400	83.3	3252	12.6	837	3.2	164	0.6	10	0.03
1928	23558	20296	86.1	2117	8.9	846	3.5	221	0.9	78	0.3
1929	23609	20610	87.2	1976	8.1	754	3.1	225	0.9	94	0.3
1930	24257	21573	88.9	1741	7.1	662	2.7	220	0.9	61	0.2
1931	24878	22602	90.8	1576	6.3	533	2.1	158	0.6	9	0.03
1932	25284	23237	91.9	1494	5.9	396	1.5	142	0.5	15	0.05
1933	25674	23677	92.2	1472	5.7	394	1.5	120	0.46	11	0.04

TABLE III. (LOCAL).
TREATMENT OF DENTAL DEFECTS
INTENDING TEACHER CANDIDATES.

Inspected.	Requiring Treatment.	Treated.	Attendances.	Fillings.
230	196	119	262	509

Extractions.		Anæsthetics.		Other Operations.
Permanent.	Temporary.	Local.	General.	
35	10	43	—	157

Half-days devoted to Inspections	..	7
Half-days devoted to Treatment	..	57

TABLE I. (B. of E.)
 RETURN OF MEDICAL INSPECTIONS FOR THE YEAR
 1933.

A. ROUTINE MEDICAL INSPECTIONS.

NUMBER OF INSPECTIONS IN THE PRESCRIBED GROUPS :

Entrants	..	..	..	5,756
Second Age Group	..	..	..	5,167
Third Age Group	..	..	..	5,495
TOTAL				<hr/> 16,418
Number of other Routine Inspections	..			Nil

B. OTHER INSPECTIONS.

Number of Special Inspections	..	..	14,457
Number of Re-Inspections	..	..	16,251
TOTAL			<hr/> 30,708 <hr/> <hr/>

TABLE II. (B. of E.)

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE
YEAR ENDED 31ST DECEMBER, 1933.

DEFECT OR DISEASE.				ROUTINE INSPECTIONS		SPECIAL INSPECTIONS	
				No. of Defects		No. of Defects	
				Requiring Treatment.	Requiring to be kept under observation but not requiring treatment.	Requiring Treatment.	Requiring to be kept under observation but not requiring treatment.
(1)				(2)	(3)	(4)	(5)
Malnutrition	..	..	..	27	25	34	25
Skin	{	Ringworm :—					
		Scalp	..	11	—	11	—
		Body	..	7	—	7	—
		Scabies	..	20	—	9	1
		Impetigo	..	67	1	49	—
Eye	{	Other Diseases (Non-Tuberculous)		73	14	74	8
		Blepharitis	..	96	2	92	12
		Conjunctivitis	..	12	5	16	1
		Keratitis	..	3	—	2	—
		Corneal Opacities	..	3	3	3	9
		Defective Vision (excluding Squint)	..	1,219	326	1,843	376
		Squint	..	250	20	380	34
		Other Conditions	..	25	7	17	10
Ear	{	Defective Hearing		22	67	34	53
		Otitis Media	..	89	24	118	27
		Other Ear Diseases	..	51	7	59	10
Nose and Throat	{	Chronic Tonsillitis only		117	999	143	732
		Adenoids only	..	17	57	25	65
		Chronic Tonsillitis & Adenoids	..	388	473	535	475
		Other Conditions	..	47	27	43	29
Enlarged Cervical Glands (Non-Tuberculous)				28	241	8	172
Defective Speech				21	26	16	42
Heart and Circulation	{	Heart Disease :—					
		Organic	..	41	110	81	204
		Functional	..	5	274	8	269
Lungs	{	Anæmia		524	48	624	55
		Bronchitis	..	183	269	125	245
		Other Non-Tuberculous Diseases	..	16	68	6	69
		Pulmonary :—					
Tuberculosis	{	Definite	..	11	3	20	10
		Suspected	..	9	81	7	104
		Non-Pulmonary :—					
		Glands	..	9	15	20	25
		Bones and Joints	..	7	7	7	6
		Skin	..	—	1	1	—
		Other Forms	..	4	7	1	7
Nervous System	{	Epilepsy		12	12	20	19
		Chorea	..	27	6	48	16
		Other Conditions	..	33	39	46	48
Deformities	{	Rickets		18	31	15	24
		Spinal Curvature	..	45	27	72	37
		Other Forms	..	65	32	98	52
Other Defects and Diseases				189	491	351	631

TABLE II. (B. of E.)

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (excluding Uncleanliness and Dental Diseases).

Group.	Number of Children		
	Inspected.	Found to require treatment.	Percentage of Children found to require treatment.
(1)	(2)	(3)	(4)
PRESCRIBED GROUPS :—			
Entrants	5,756	1,050	18·24
Second Age Group ..	5,167	1,087	21·03
Third Age Group ..	5,495	1,227	22·32
Total (Prescribed Groups) ..	16,418	3,364	20·48
Other Routine Inspections ..	Nil	Nil	Nil

TABLE II. (B)—MODIFIED.

NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION WHO WERE REFERRED FOR TREATMENT (excluding Uncleanliness and Dental Diseases).

Group.	Number of Children		
	Inspected.	Referred for Treatment.	Percentage of children referred for treatment.
(1)	(2)	(3)	(4)
PRESCRIBED GROUPS :—			
Entrants	5,756	712	12·37
Second Age Group ..	5,167	742	14·36
Third Age Group ..	5,495	712	12·95
Total (Prescribed Groups) ..	16,418	2,166	13·19
Other Routine Inspections ..	Nil	Nil	Nil

TABLE III. (B. of E.)
RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

24

BLIND CHILDREN.

At Certified Schools for the Blind.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
21	—	—	2	23

PARTIALLY BLIND CHILDREN.

At Certified Schools for the Blind.	At Certified Schools for the Partially Blind.	At Public Elementary Schools.	At other Institutions.	At no school or Institution.	Total.
—	—	51	—	6	57

DEAF CHILDREN.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
24	3	—	3	30

PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf.	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	—	19	—	—	19

MENTALLY DEFECTIVE CHILDREN.
FEEBLE-MINDED CHILDREN.

At Certified Schools for Mentally De- fective Children.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
87	161	—	94	342

EPILEPTIC CHILDREN.
CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
2	—	—	15	17

TABLE III. (continued).

PHYSICALLY DEFECTIVE CHILDREN.

A.—TUBERCULOUS CHILDREN.

1.—CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
11	179	—	57	247

2.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
18	48	—	11	77

B.—DELICATE CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	235	—	14	249

C.—CRIPPLED CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
18	206	—	38	262

D.—CHILDREN WITH HEART DISEASE.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	22	—	11	33

TABLE IV. (B. of E.)

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED
31ST DECEMBER, 1933.

TREATMENT TABLE.

GROUP I.—MINOR AILMENTS (excluding Uncleanliness, for which
see Group VI.)

DISEASE OR DEFECT. (1)	Number of Defects treated, or under treatment during the year		
	Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
SKIN :—			
Ringworm—Scalp (No. treated by X-Rays 7)	58	6	64
Ringworm—Body	74	2	76
Scabies	95	6	101
Impetigo	1,900	18	1,918
Other Skin Diseases ..	655	16	671
MINOR EYE DEFECTS (external and other, but excluding cases falling in Group II.) ..	1,135	65	1,200
MINOR EAR DEFECTS ..	824	67	891
MISCELLANEOUS (e.g. minor in- juries, bruises, sores, chilblains, etc.)	5,620	653	6,273
TOTAL ..	10,361	833	11,194

TABLE IV. (B. of E.)

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye Defects treated as Minor Ailments—Group I.)

DEFECT OR DISEASE.	No OF DEFECTS DEALT WITH				No. OF CHILDREN FOR WHOM SPECTACLES WERE		
	Under the Authority's Scheme. (2)	By Private Practitioner or at Hospital apart from the Authority's Scheme. (3)	Other-wise. (4)	Total. (5)	Prescribed (1)		Obtained (2)
					(i) Under the Authority's Scheme.	(ii) Other-wise.	
(1)							
ERRORS OF REFRACTION (including Squint)	2,987	58	—	3,045	1,908	47	1,562
OTHER DEFECT OR DISEASE OF THE EYES (excluding those recorded in Group I.) ..							47
TOTAL ..	2,987	58	—	3,045			

TABLE IV. (B. OF E.)

GROUP III. TREATMENT OF DEFECTS OF NOSE AND THROAT.

NUMBER OF DEFECTS.									
RECEIVED OPERATIVE TREATMENT									
Under the Authority's Scheme, in Clinic or Hospital.				By Private Practitioner or Hospital, apart from the Authority's Scheme.				Total.	
(1)				(2)				(3)	
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)
55	12	734	—	11	2	19	—	66	14
								76	753
								(4)	
								(5)	
								909	
								Total number treated.	
								66	

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids. (iv) Other Defects of the Nose and Throat.

TABLE IV. (B. OF E.)
GROUP IV.—ORTHOPAEDIC AND POSTURAL DEFECTS.

	UNDER THE AUTHORITY'S SCHEME.				OTHERWISE.		
	Residential treatment with education.	Residential treatment without education.	Non-Residential treatment at an Orthopaedic Clinic.	Residential treatment with education.	Residential treatment without education.	Non-Residential treatment at an Orthopaedic Clinic.	Total number treated.
Number of children treated.	55 12 9 1	(1) (2) (3) (4)	—	515	—	—	537

NOTE.—(1) These are Non-Tuberculous cases admitted to Orthopaedic Hospital under the Education Authority's approved formal arrangements.
 (2) These are Tuberculous cases admitted to Orthopaedic Children's Ward at County Council Sanatorium, free of cost to Education Authority or parents.
 (3) These are Tuberculous cases admitted to Children's Hospital, Gringley, under the Tuberculosis Scheme at no cost to the Education Authority or to parents.
 (4) This is a case admitted to Harlow Wood Orthopaedic Hospital under the Tuberculosis Scheme at no cost to the Education Authority or to parents.

TABLE IV. (B. of E.)

GROUP V.—DENTAL DEFECTS.

1. Number of children who were :—

(i.) Inspected by the Dentist :—

Aged	5	..	..	..	—
„	6	..	..	..	2,990	
„	7	..	..	..	3,662	
„	8	..	..	..	3,886	
„	9	..	..	..	3,559	
„	10	..	..	..	3,531	
„	11	..	..	..	3,492	
„	12	..	..	..	2,958	
„	13	..	..	..	2,580	
„	14	..	..	..	719	
					—	27,377
Specials	..	..	..	..		561
					Grand Total	.. 27,938

(ii.) Found to require treatment	..	..	..	23,541
(iii.) Actually treated	..	..	..	12,352

2. Half-days devoted to	{ Inspection 339 }	Total	3,695
	{ Treatment 3,356 }		
3. Attendances made by Children for treatment	..		18,673
4. Fillings	{ Permanent Teeth .. 23,756 }	Total	24,175
	{ Temporary Teeth .. 419 }		
5. Extractions	{ Permanent Teeth .. 3,532 }	Total	24,456
	{ Temporary Teeth .. 20,924 }		
6. Administrations of General Anæsthetics for Extractions			1,072
7. Other Operations	{ Permanent Teeth 2,802 }	Total	3,011
	{ Temporary Teeth 209 }		

TABLE IV. (B. of E.)

GROUP VI.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i.) Average Number of visits per School made during the year by the School Nurses	.. ..	4
(ii.) Total number of examinations of children in the Schools by School Nurses	.. ..	195,115
(iii.) Number of individual children found unclean	..	2,337
(iv.) Number of children cleansed under arrangements made by the Local Education Authority	.. ..	Nil
(v.) Number of cases in which legal proceedings were taken:		
(a) Under the Education Act, 1921	.. ..	Nil
(b) Under School Attendance Bye-Laws	..	Nil

The following Tables give the nature of the defects found in the case of Secondary Pupils.

TABLE II. (B. OF E.) SECONDARY.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31ST DECEMBER, 1933, IN THE SECONDARY SCHOOLS INSPECTED.

DEFECT OR DISEASE.					ROUTINE INSPECTIONS.	
					No. of Defects	
					Requiring Treatment.	Requiring to be kept under observation but not requiring treatment.
(1)					(2)	(3)
Malnutrition	..	..	..	..	—	—
Skin	Ringworm :—				—	—
	Scalp	..	..	..	3	—
	Body	..	..	..	—	—
	Scabies	..	..	..	—	—
	Impetigo	..	..	..	1	—
Eye	Other Diseases (Non-Tuberculous)				16	4
	Blepharitis	..	..	..	6	8
	Conjunctivitis	..	..	..	2	—
	Keratitis	..	..	..	—	—
	Corneal Opacities	..	..	..	—	—
	Defective Vision (excluding Squint)	..	..	..	480	68
	Squint	..	..	..	16	1
	Other Conditions	..	..	..	1	2
Ear	Defective Hearing	..	..	..	3	12
	Otitis Media	..	..	..	5	6
	Other Diseases of the Ear	..	..	..	6	7
Nose and Throat	Chronic Tonsillitis only	..	..	..	3	70
	Adenoids only	..	..	..	1	2
	Chronic Tonsillitis and Adenoids	..	..	..	8	22
	Other Conditions	..	..	..	4	9
Enlarged Cervical Glands (Non-Tuberculous)					—	6
Defective Speech					2	5
Teeth—Dental Diseases					375	—
Heart and Circulation	Heart Disease :—				—	—
	Organic	..	..	..	5	11
	Functional	..	..	..	—	65
Lungs	Anæmia	..	..	..	78	52
	Bronchitis	..	..	..	7	16
	Other Diseases (Non-Tuberculous)	..	..	..	2	13
Tuberculosis	Pulmonary :—				—	—
	Definite	..	..	..	—	—
	Suspected	..	..	..	—	2
	Non-Pulmonary :—				—	—
	Glands	..	..	..	—	—
	Spine	..	..	..	—	1
	Hip	..	..	..	—	—
	Other Bones and Joints	..	..	..	—	—
	Skin	..	..	..	—	—
Nervous System	Other Forms	..	..	..	—	—
	Epilepsy	..	..	..	2	—
	Chorea	..	..	..	—	1
Deformities	Other Conditions	..	..	..	1	4
	Rickets	..	..	..	—	—
	Spinal Curvature	..	..	..	39	23
Other Defects and Diseases	Other Forms	..	..	..	36	30
		..	..	..	6	45

TABLE IV. (B. of E.) SECONDARY.

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye Defects treated as Minor Ailments—Group I.)

DEFECT OR DISEASE.	No OF DEFECTS DEALT WITH			No. OF CHILDREN FOR WHOM SPECTACLES WERE		
	Under the Authority's Scheme.	By Private Practitioner or at Hospital apart from the Authority's Scheme.	Other-wise.	Prescribed (1)		Obtained (2)
	(2)	(3)	(4)	(i) Under the Authority's Scheme.	(ii) Other-wise.	(ii) Other-wise.
(1)						
ERRORS OF REFRACTION (including Squint)	223	8	—	136	3	97
OTHER DEFECT OR DISEASE OF THE EYES (excluding those recorded in Group I.)						3
TOTAL	223	8	—			

TABLE IV. (B. OF E.) SECONDARY.

GROUP III. TREATMENT OF DEFECTS OF NOSE AND THROAT.

[illegible]

- (i) Tonsils only.
- (ii) Adenoids only.
- (iii) Tonsils and Adenoids.
- (iv) Other Defects of the Nose and Throat.

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